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DRMI Newsletter

Defense Resources Management Institute, Naval Postgraduate School, Monterey, California

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C.J.'s Corner

Comments from Dr. C.J. LaCivita, Executive Director, DRMI

Mala:La Dua aura ---



On 22 May 2009, President Obama signed the Weapon Systems Acquisition Reform Act (WSARA). WSARA is a response to displeasure in both the Pentagon and the Congress with

continuing large cost overruns in major weapon system programs and is one in a long line of acquisition reforms addressing this issue. To control costs, the act relies on a number of reviews, changes in organizational structure and reporting requirements. It also establishes accountability

for cost estimates by requiring that the Director of Cost Assessment and Program Evaluation certify them.

The changes in organizational structure are the most visible of WSARA's measures. The Office for Program Analysis and Evaluation (PA&E) will be reorganized and renamed the Office for Cost Assessment and Program Evaluation (CAPE) to give more emphasis to the cost estimating work that PA&E has traditionally performed. Whereas PA&E had a principal deputy and five deputy directors, CAPE will have two deputies, one for cost assessments and one for program evaluation. The Director of

CAPE will be a political appointee confirmed by the Senate; the Director of PA&E was not a political appointee. Although some have suggested that requiring CAPE's director to be made by political appointment is a radical change, this is, in fact, not precedent-setting; at times, political appointment determined PA&E's director.

9 11 19

WSARA calls for many adjustments in processes and reporting requirements, more than can be discussed here. Some of the most important changes attempt to bring cost into the earliest phases of

(See "C.J.'s Corner"on page 2.)

An Outline of "Counter-Insurgency and the Cashless Economy," by Dr. Jonathan Lipow



Can Coalition forces operating in Afghanistan and Iraq gain a meaningful military advantage by changing the methods used to pay for the purchase of local goods and services in those countries?

Peter Kunkel, Acting Assistant Secretary of the Army (Financial Management and Comptroller), posed this question in a November-December 2008 Military Review paper. Kunkel argued that massive Coalition injections of cash into the economies of Afghanistan and Iraq (\$19 Billion between 2003 and 2008) had retarded the development of modern financial systems while promoting dependence on anonymous cash-based transactions ideally suited to the needs of insurgents. He also pointed out that the dependence on cash payments imposed a major logistic burden on Coalition forces, and had resulted in a number of incidents where U.S. officers had been caught embezzling funds. To deal with this situation, he proposed that Coalition forces discontinue the use of physi-

cal cash as a means of payment. Instead, electronic (wire) transfers between bank accounts would finance large transactions, while "mobile banking" systems that allow cellular phone subscribers to efficiently send and receive small sums of money by placing orders over their phones, would finance smaller transactions. Kunkel called this approach the "cashless battlefield."

The cashless battlefield seems to have struck a chord with Coalition commanders.

(See "Cashless Economy" on page 15.)

C.J's Corner (Continued from page 1.)

system development. One modification that has the potential to have a significant impact is that WSARA mandates that Joint Requirements Oversight Committee (JROC) include a member from CAPE. This should give the JROC the ability consider cost implication in the development of required capabilities, a concept we have taught at DRMI for decades. Another significant adjustment requires a certified cost estimate for Milestone A approval. Recall that Milestone A approval involves material solution analysis and an analysis of alternatives and allows entry to the technology development phase. WSARA also requires program managers to inform cost estimators about program changes so that they can update the cost estimates.

The impact of these and other changes required by WSARA allow decision makers to consider tradeoffs among cost, effectiveness, schedule and risk from the determination of desired capabilities through the entire system development process.

Another interesting feature of the law is that it instructs the Office of the Undersecretary for Acquisition, Technology and Logistics to do performance assessments and root cause analyses on major acquisition programs. The intent is to develop a database that allows decision makers where and why problems have occurred in the past.

There have been many modifications to

the acquisition process over the last forty years. In fact, some of the adjustments have reversed previous changes. We have centralized and decentralized the process several times and gone back and forth on various requirements. In fact, the tools to make good decisions have been available; what has been lacking is the will and discipline to use them. This is true for both DoD and Congress. However, both now seem to be willing to tackle the problem of cost overruns in earnest. Moreover, both realize that this will be a long-term effort. While the changes to the process WSARA calls for have the potential to have significant impact, the accountability it establishes may be its most important feature. Time will tell how much impact WSARA will have.

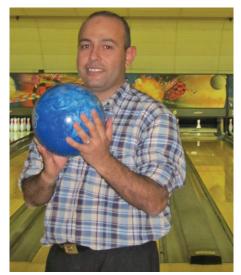
Resident Programs

IDMC 10-1, by Ms. Charlie Orsburn



The International Defense Management Course (IDMC) 10-1 began on 8 February. The 7 February opening reception on Herrmann Hall's Quarterdeck gave the 34 participants from 23 countries (including

the United States) an opportunity to meet



LT COL Yasser Sabry Abbas M. Shalaby (Egyptian Air Defense Command Headquarters) enjoying a Field Studies Program sponsored bowling activity



(from left to right) COL Pichan Khamboonrat (Thai Army), Mr. Vinod Kumar Vjay (Indian MoD), COL Damodar Thapa (Nepalese Army), and COL Suresh Thapa (Nepalese Army) at the DRMI course opening reception.

both fellow participants and DRMI faculty and staff for the first time.

The participants had a busy first week. They began their week with the Tempo Military Planning Game, which provided the course's foundation. On 11 February, the participants met their cultural ambassador volunteers at the Foreign Area Officers – Cultural Ambassador Program (FAO-CAP) "meet and greet."

Participants closed out an intense first week with a unique cultural experience of American bowling on 12 February. On 13 February, participants became more acquainted with the NPS neighborhoods of Monterey, Seaside and Pacific Grove. During the third week of the course, participants began presenting their security briefings to their fellow classmates. In

(See "IDMC 10-1" on page 3.)

IDMC 10-1 (Continued from page 2.)



IDMC 10-1 class photo

week five, on 6 March, the participants had an opportunity to go south along the beautiful coastal highway and take in the remarkable scenery of Pebble Beach, Big Sur, and Julia Pfeiffer State Park. In week six, 16-21 March, headed off to Washington D.C., where they toured the city of D.C. and Mount Vernon (George Washington's residence), Arlington National Cemetery, the Udvar-Hazy Air & Space Museum and other Smithsonian museums. They also met with Congressman Sam Farr, members of the State Department, Defense Security Cooperation Agency and the Institute for Defense Analysis.

Many other planned activities occurred throughout the course, with the FAO-CAP volunteers, including the much-anticipated cultural exchange of the American sport, softball,

and a potluck, where the participants prepared their favorite traditional foods.

The course concluded on 21 April 2010.

DRMC 10-1

The DRMC 10-1 began on 11 January with 24 participants, including new faculty member and army liaison, MAJ Michael Nixon, and the Field Studies Program manager, Ms. Charlie Orsburn. The participants represented eight countries including the United States. On 23 January 2010 the participants toured the Monterey peninsula.

Dr. William Greer, Assistant Director of the System Evaluation Division at the Institute for Defense Analyses (IDA), a non-profit federally funded research and development center in Alexandria, was the guest speaker for DRMC 10-1 on February 4th. Dr. Greer specializes in air mobility cost and effectiveness analyses and has been involved in several recent large studies that address strategic and tactical airlift demands and the next-generation airborne tanker. Dr. Greer spoke to the class about a cost effectiveness analysis study his organization performed in the 1990s for the Department of Defense. The study examined whether to continue, modify or halt the C17 program.

The course concluded on 5 February.



DRMC 10-1 participants

IDMC 09-2 Washington, DC trip, by Field Studies Program Manager Ms. Charlie Orsburn

The 42 IDMC 09-2 participants and their escorts, Dr. Francois Melese and his wife Heather, Lt Col Jose Andin, LtCol Scott Griffith, and Field Studies Program Manager Charlie Orsburn had a very busy and full schedule during the Washington, DC trip, 27 October – 1 November 2009. The first day was filled with briefings from Congressman Sam Farr and Senior Professional Staff Member, Subcommittee on State, Foreign Operations, and Related Programs Committee on Appropriations,



Above: SUB LT Vinton John (St. Vincent and the Grenadines Coast Guard) with citizens of Colonial Williamsburg;

Left: 1st LT Allison Yoere Rukusa (Sudanese Army) speaks with Mr. Steve Marchese from the House State-Foreign Operations Appropriations Subcommittee at a Capitol briefing

Mr. Steve Marchese. After the capitol briefing and some lunch at Union Station, the participants headed to the State Department where they met the Director of the Office of Congressional and Public Affairs, Jason (Jay) H. Greer. Mr. Greer gave participants an overview of the State Department's role in American government and guided the group through briefings by Michael Keays, Bureau of South and Central Asian Affairs - the "Situation in Afghanistan;" Todd Schwartz, Bureau of Near Eastern Affairs - the "U. S. Policy on Iran;" and Bill Cavness, Bureau of Near Eastern Affairs - the "Situation in Iraq."

On Thursday the group travelled through the beautiful countryside of Virginia down to Historic Colonial Williamsburg (CW), where they enjoyed a superb presentation on the history of American fiddle music. The docent led tours of CW and the reenactments of historical events helped give life to America's cultural beginnings.

On Friday, the participants headed to Institute for Defense Analyses (IDA) for a series of briefings. Robert (Bob) Soule, Division Director for the operational Evaluation Division; Dr. Larry Goldberg,

RSM and Dr. Bill Greer, RSM, briefed the participants on the following subjects respectively: Think Tanks Plus - Intro to IDA; C-17 Cost & Operational Effectiveness Analysis (COEA); Making America's Security Partners Better Defense Resource Managers. These briefings were of particular interest to the participants as they are directly related to the second half of the course at DRMI. After the briefings at IDA, the participants headed back to the hotel where many headed out to the embassies, museums, Georgetown, and some even to New York. On Saturday, participants had additional free time to visit museums and on Sunday the Udvar-Hazy Air & Space Museum.

Upon returning to Monterey, the participants presented their Field Studies Program (FSP) Presentations on Monday and Tuesday. Participants covered the following topics in their presentations: media and public opinion; the War Powers Act; immigration; the class system of the United States and how to run for the presidency. All of the presentations were interesting and insightful.

The IDMC 09-2 concluded with a graduation ceremony on 4 December.

For graduation photos, please see: http://www.nps.edu/PAO/PhotoGallery/Galleries/DRMI_Decembe2009/index.htm

LTG Stanton III speaks to IDMC 09-2

LTG Edgar Stanton III from the Office of the Assistant Secretary of the Army for Financial Management was the guest speaker for IDMC 09-02 on 11 October 2009. LTG Stanton is the Military Deputy for Budget. His organization works to formulate, submit, and defend the Army budget to Congress, oversees the proper and effective use of appropriated resources

to accomplish the Army's assigned missions and provides timely, accurate, and reliable financial information to enable leaders and managers to incorporate cost considerations into their decision-making. LTG Stanton spoke to the class about the operation of his organization and the myriad of challenges it encounters.

Mobile Programs

Albania mobile course, by Senior Lecturer Allan Polley



DRMI conducted its second Albanian mobile course during the last week in January in the port city of Durres. An energetic group of 25 participants from various organizations within the Albanian MoD

engaged in stimulating discussions of how to apply the course concepts to their specific situations.

The Minister of Defense of Albania, the Honorable Mr. Arben Imami, hosted a reception for the DRMI faculty, course participants and the DRMI Alumni Association of Albania at the Military and Cultural Center in Tirana. The Deputy Minister of Defense. the Honorable Ms. Zana Zhuka. and the Deputy Chief of Defense, Admiral Kristag Gerveni, were also in attendance. The Minister acknowledged the hard work and accomplishments

of this remarkable group of people who were instrumental in Albania's accession to NATO. It was a great pleasure to renew



Participants, DRMI faculty and interpreters of the Albania MIDMC

acquaintances with so many of DRMI's alumni and to feel their pride for all they have achieved in such a short time.

DRMI conducts workshops in Tajikistan and Kyrgyzstan, by Senior Lecturer Don Bonsper



DRMI conducts workshops in Senior Lecturers Al Polley and Don Bonsper conducted workshops with Tajik officers from the Ministry of Defense, Committee for Emergency Situations, and

National Guard in Dushanbe, Tajikistan 2-5 November 2009 and with Kyrgyz officers from the Border Service, National Guard, and Interior Forces in Bishkek, Kyrgyzstan 9-11 November 2009. Both workshops focused on key concepts associated with a toplevel resources management system—with emphasis on several key cost and budget analysis concepts including





Above: Tajikistan workshop participants pictured with Senior Lecturers Al Polley (left) and Don Bonsper (right), who are wearing regional hats, identifying the wearer to be from a specific region of Tajikistan;

Left: Senior Lecturers Al Polley (far right) and Don Bonsper (far left) with Kyrgyzstan workshop participants.

how to assess and make tradeoffs between competing alternatives at two levels of analysis. The format for both events was truly a workshop with minimal Power Point intervention in a free-flowing exchange/discussion of issues relevant to the participants. At the request of Central Command and officials from both countries, DRMI is planning additional events for 2010 and 2011.

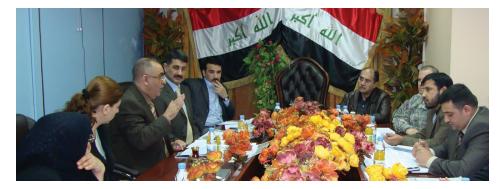
DRMI team conducts two workshops in Iraq, by Senior Lecturer Stephen Hurst



Dr. Jonathan Lipow, Dr. Jason Hansen and Senior Lecturer Steve Hurst recently completed two workshops in the city of Erbil, Iraq. The workshops were hosted by the Kurdistan Regional Government's Min-

istry of the Interior (KMoI) and included participants from both the Government of Iraq's Ministry of the Interior (MoI) as well as the KMoI. Bringing together members from both the MoI and KMoI was an historical event that fulfilled a long-standing goal of the U.S. advisors to the central government in Baghdad.

The course had two major objectives. The first objective was to introduce the senior leadership of MoI and KMoI to the concepts of strategic resources management, to include strategic planning, SWOT analysis, economic reasoning, capabilities-based planning and cost effectiveness. In



Dr. Essam (Director of Budget and Finance, Iraqi Mol) discusses resource management education requirements with COL Holinaty of the Iraq Training Assistance Mission (ITAM)

general, DRMI designed the curriculum to take the participants from the development of a multi-year strategic plan through the budget process that would obtain the funds necessary to implement their plan. Of particular value was the involvement of senior members of the MoI staff whose presentations were fully integrated into the DRMI curriculum. Each presentation brought a real world, Iraqi perspective to the concepts being put forth in the DRMI faculty's lectures.

Our second objective was to bring members from like departments in MoI and KMoI together in the same forum. DRMI has always had as one of its primary objectives the mixing of multiple government ministries in the same workshop. This expands each participant's network of colleagues and facilitates an exchange of ideas between persons in the same profession. On this point I suggest the workshop succeeded spectacularly. The course's exercises and case studies gave absolutely no



Iraqi workshop participants

(See "Iraq workshops" on page 7.)

Iraq workshops (Continued from page 6.)

indication of whether discussion group members were from the MoI or KMoI.

Another first for the workshops presented in Iraq to date is the integration of members of the senior leadership of MoI into the curriculum of the workshop. We have often brought in guest speakers to address our participants in Monterey, but the inclusion of MGen Alaa, MGen Essam and MGen Hasem as members of the workshop faculty added immeasurably to the quality of the instruction. Each of these esteemed gentleman brought with them the material to conduct a real, interactive class that introduced the participants to the way in which the Government of Iraq (GoI) actually implements the core concepts presented by



Dr. Jason Hansen in discussion with workshop participants



Above: Iraqi workshop participants hard at work;

Right: MAJ Safaa Abdulhussein Morjan Al-Zubaidi (Iraqi Mol) address workshop participants

Dr. Lipow, Dr. Hansen and myself.

With this workshop we have moved beyond the specialized, but equally necessary, organizational-level workshops (budget preparation, project management, and multi-criteria decision making) of the past to a new, and very much needed, series of educational programs touching on all aspects of the resources management process. Although the specialized courses are still needed at the action officer level, this new series of courses directed at educating the senior leadership of the ministries introduces a top-down approach that will bring real change to the operation of the

GoI. Based on 20+ years of experience conducting similar resources management courses in more than 40 different countries around the world, the multi-front program laid out be COL Francis Holinaty, Iraqi Training Assistance Mission Director of Financial Management and his staff represent the best possible expenditure of the limited funds available to ITAM for the education and training of the MoI. •

Iraq Multi Criteria Decision Making Course, by Lecturer Luis Morales



The Defense Resources Management Institute (DRMI) conducted a tenday Multi-Criteria Decision Making (MCDM) workshop from 10-21 January 2010 in Baghdad, Iraq. Lecturer Mark

Hladky and Lecturer Luis Morales, DRMI faculty members, conducted the MCDM workshop at the High Institute of the Baghdad Police College to 52 Iraqi policemen from the Ministry of the Interior. DRMI designed the interactive workshop to introduce basic concepts



Iraq MCDM graduation photo

(See "Iraq MCDM" on page 8.)

Iraq MCDM (Continued from page 7.)

of analysis of alternatives, to include building models that help identify and quantify multiple criteria that produce an overall measure of effectiveness (MOE), evaluating alternatives using this model to produce MOEs for each alternative that can be ranked-ordered from best to worst based on decision-maker preferences, and then integrating the MOEs with measures of cost to produce cost-effectiveness measures that can be used to compare alternatives and inform decisions that support national priorities.

Workshop participants conducted various exercises that required them to apply the concepts presented and brief their analysis to fellow participants and DRMI faculty members. The exercises also allowed participants to compare and contrast common challenges presented in the various scenarios with Iraqi resource allocation practices to determine how they might be improved.



Iraq MCDM participants in lecture

DRMI Curriculum News

DRMI prepares new resident course

Dr. Natalie Webb, with Drs. C.J. LaCivita and Diana Angelis, and Lecturers Mark Hladky and Luis Morales, have begun work on a new one-week resident course for DRMI. The course is titled, "Performance-Based Management and Budgeting" and will be available early in 2011.



DRMI prepares new online course

Dr. Natalie Webb, with Drs. C.J. LaCivita, Robert McNab and Anke Richter, and Senior Lecturer Don Bonsper have begun creating a new online course for DRMI titled, "Capabilities-Based Planning." This course will be available to anyone searching the Internet, and will cover the basics, from planning to resourcing, of converting strategic decisions into funded realities. •

Participant News

A change will do you good

While DRMI truly enjoys hearing from our participants and tremendously values our continuing relationship, we have decided to limit our printing of individual greetings from our participants. DRMI receives many wonderful messages from our participants and the communication has increased dramatically over the past few years. For this reason, we encourage participants to keep in touch with each other through Facebook. (For more information on Facebook, please see the article, "Will you be my Facebook friend?" on page 20 of this newsletter. DRMI will continue to print professional news in this section, such as career changes and promotions. We look forward to hearing from you on Facebook! •

IDMC 08-2 class notes

LTC Ronald Ovalle, IDMC 08-2, Guatemalan Army, received a promotion to COL on 1 January 2010. Congratulations, COL Ovalle!

COL Mohammad Ibrahim K. Binsegair, Saudi Arabian Air Force, phoned DRMI to send his best wishes to the department and to share the news of his promotion to Assistant Squadron Commander of his training wing; he received the promotion on 20 January 2010. Congratulations, COL Binsegair!

DRMC 07-2 class notes

CDR Edward Magryta (USN, reserves) informed DRMI that he won the November 2009 election for councilman in the town of Highlands, NY (located in Orange country). He indicated that he is "fully engaged in the transition" and that he was "inheriting some interesting issues from the previous administration."

SIDMC 2007 class notes

Lieutenant Colonel Radoslav Ivancik, Slovakian Army, wrote that he will be reassigned from his current position of Chief, J-8, Slovak General Staff, to the post of Chief of the Group for Financial Support of the NATO Military Committee Conference, to be held later this year in Slovakia. The Ministry of Defense promoted Lieutenant Colonel Ivancik to Colonel on 1 January 2010. Congratulations Colonel Ivancik!

Faculty & Staff News

Ms. Betty Field passed away

Ms. Betty Ann Field, formerly coordinator of DRMI's International Activities program (now the Field Studies Program) passed away on 18 October 2009. A memorial service was held for her at 3pm on Saturday, 7 November 2009 at the Pacific Grove United Methodist Church. A reception took place after the service at the Pacific Grove Masonic Temple.

Ms. Field was born 28 May 1924 in Flushing, NY. She was the daughter of Henry W. Eisfelder, MD. She was educated at Edgewood Park, Briarcliff Manor, NY and was a graduate of Keuka College, NY. During WWII, Ms. Field served in the U.S. Army Air Corps. Following the war, she continued serving the government at the

Naval Postgraduate School and DRMI. She was DRMI's International Activities Assistant for more than 40 years. In 1995, the Secretary of the Navy awarded Ms. Field the Navy Superior Service Award and the Navy Superior Civilian Service Award.

A daughter, Vaughn M. Hague, and a son, Renee H. Field, preceded her I death. Two sons, Leslie A Field (Pacific Grove), and Hung Huyng (San Jose), and a daughter, Andre Kettell (Virginia), 11 grandchildren and two great-grandchildren survive her.

DRMI remembers Ms. Field fondly and truly valued her service to both the participants and to the department. •



Ms. Betty Field

LTC Mark Hladky retires from U.S. Army, becomes DRMI civilian faculty member



LTC Mark Hladky retired from the Army December 1st after over 22 years of service. He served in a variety of assignments around the world as both an artillery officer and a

resource manager during his career. LTC Hladky has been assigned as the Army representative to DRMI since April 2006. Upon his retirement, Mark was hired by DRMI as civilian faculty member and will continue to work as a lecturer and discussion leader for both resident and mobile courses. "I am excited to have the privilege to continue to work at DRMI.

I enjoy the unique opportunity it provides to share experiences and challenges in defense resource management with individuals from around the world. I look forward to meeting new individuals and hopefully seeing again those of you that I have worked with over the last three years." –LTC Hladky •

Dr. Robert McNab is acting SME on building defense institutions



Dr. Robert McNab is now acting as the Subject Matter Expert (SME) in the area of public finance and budgeting for the Office of the Secretary of Defense – Policy sponsored project on building defense institutions in partner countries. As the SME, Dr. McNab works with other members of the Defense Institution Building Team to identify best practices in public institutions. •

Dr. Robert McNab participates in AOWG

Dr. Robert McNab participated in the Kazakhstan – United States Action Officer Working Group (AOWG) in Almaty, Kazakhstan on the 22nd and 23rd of February 2010. The AOWG is part of the military-to-military engagement between the U.S. Department of Defense (DoD) and the Kazakhstan Ministry of Defense (MoD) and determines the military-to-military contact work plan for Fiscal Year (FY) 2011. As the NPS representative, Dr. McNab discussed DRMI workshops; he also discussed future mentoring of Kazakhstan National Defense University and Military Institute of the MoD faculty on developing graduate programs and conducting faculty exchanges in FY 2010 and 2011. Representatives of U.S. Central Command and the MoD will discuss the final work at the May 2010 Kazakhstan-United States Consultative Staff Talks in Tampa, FL.

Dr. Robert McNab teaching GPPAG certificate program

Dr. Robert McNab taught in the first Global Public Policy Academic Group (GPPAG) graduate certificate program for Civil Affairs (CA) and Psychological Operations (PSYOP) officers. GPPAG designed the stability operations certificate to meet the needs of mid-career CA and PSYOP officers in terms of their knowledge of the impact of globalization on security, analytical methods for stability operations, and leadership in complex environments. Dr. McNab taught a course highlighting concepts in economic develop, public finance, and analytical methods to foster stability in post-conflict environments. Dr. McNab also serves as the Academic Associate of GPPAG.

Dr. Natalie Webb to teach at CIA



Dr. Natalie Webb, as part of the Center for Defense Management Research, has been asked to co-teach a workshop at the Central Intelligence Agency's (CIA) Kent School in mid-March with Dr.

Douglas Brook and Senior Lecturer Phil Candreva of the NPS Graduate School of Business and Public Policy. The workshop, titled "Defense Budgeting," will help CIA analysts better understand the environment, models, tools, literature and data available to help them better prepare intelligence reports. •

Ms. Erika Mitchell begins SCEP



DRMI recently promoted Ms. Erika Mitchell of the Admin Office to GS-4. Ms. Mitchell recently enrolled into the Student Career Experience Program (SCEP), which means that she will continue

to work with DRMI while attending college. Following Ms. Mitchell's graduation, she can convert into a full-time permanent position at DRMI.

Ms. Mitchell is an asset to the Admin Office and to DRMI, and we are happy she is looking forward to working for us in the future!

CDR Joel Modisette, USN, retires



Our US Navy Military Liaison, CDR Joel D. Modisette, USN, retired from active duty following 25 years service in November. CDR Modisette lectured in the quantitative analysis lecture series for our Defense Manage-

ment Course in addition to contributing in the Streamlining Government and Multiple Criteria Decision Making Courses. His experience in Operations Analysis, Joint and Combined Staffs, and operational experience throughout the world added value to the student DRMI experience. The faculty will sorely miss his contributions to the department.

Fortunately CDR Modisette did not travel far following retirement. He now works for Northrop-Grumman as a manager of software development projects at the Defense Manpower Data Center (DMDC) in Seaside, CA. DMDC manages the enterprise human resources databases for the DoD - a research asset many of our faculty access.

CDR Modisette will be leading a team that is creating a one-stop information portal for analysis and reporting of DoD Enterprise Human Resources Information. CDR Modisette has already asked faculty at DRMI to help provide suggestions for the ad hoc analysis capabilities of this portal, which will benefit DRMI faculty research.

Though we have lost CDR Modisette as a faculty member, we are glad to have an opportunity to continue to see him around the halls of DRMI.

MAJ Mike Nixon, USA, joins DRMI faculty



MAJ Mike Nixon, U.S. Army, joined the DRMI faculty in November 2009. MAJ Nixon earned his BA in Business from Mercer University – Macon Georgia (1993), and his MBA from Webster University (2008). His military experience includes assignments as an Infantry Officer serving in various positions at the Platoon through Company Command level and training officer at the Brigade and Division levels. Since transition to a Comptroller in 2004, he has served in a variety of Comptroller and Finance positions at the tactical and operational level. MAJ Nixon served as the Headquarters, 3rd U.S. Army (ARCENT) Budget Officer and Budget Analyst, as well as, the

LOGCAP III Kuwait Funding Officer. Most recently MAJ Nixon served as the Financial Management Planning Officer within the Sustainment Brigade at Fort Stewart, Georgia, responsible for planning and coordinating training and operational use of Financial Management assets within the Sustainment Brigade's Area of Responsibility. •

DRMI forms search team for new economics professor

Drs. Jason Hansen, Robert McNab and Natalie Webb, members of the DRMI economics search team, conducted candidate interviews at the January 2010 American Economic Association annual meetings in Atlanta, GA. The search team, along with the DRMI faculty, are in the process of selecting final candidates who will make presentations at DRMI in the coming months.

Conference Presentations and Research

Dr. Diana Angelis attends ITEA



Dr. Diana Angelis (Lt Col, USAF) attended the International Test and Evaluation Association (ITEA) 2009 Symposium 28 September to 1 October 2009. Dr. Angelis presented the results of a 2008

survey of flight engineers at the Air Force Flight Test Center (AFFTC) at Edwards AFB, CA. The purpose of the study was to gather information regarding the implementation of Design of Experiments (DOE) at AFFTC from the perspective of the Test Center engineering community. Dr. Angelis conducted the study in two parts, organizing it into three sections: (I) DOE Training, (II) DOE Experience and (III) DOE Future. 54 Test Center engineers responded to the survey. The second part of the study involved face-to-face meetings with survey participants to gather information about their views on DOE in general and its

application to AFFTC work in particular. Dr. Angelis conducted face-to-face interviews with 46 respondents. The results of the survey suggested that the cost, schedule and safety limitations imposed by the realities of developmental test and evaluation of Air Force flight systems often prevent the correct application to DOE techniques. While the participants recognized that the statistical rigor of DOE was technically correct and desirable, justifying its use to customers, program managers and contractors was extremely difficult.

Dr. Diana Angelis serves as guest speaker at WHINSEC

The Western Hemisphere Institute for Security Cooperation (WHINSEC) invited Dr. Diana Angelis to be the guest speaker for the Resource Management Course (CMS) in October 2009. Dr. Angelis made a presentation on Performance Management and Budgeting to the students on 20 October was the speaker at the graduation ceremonies the following day. WHINSEC is an institution comprised of personnel from the armed forces, security forces and civilians from many Latin American countries. The CMS is a six-week course presented in Spanish and designed to instruct civilians and military personnel in resource management concepts, methods, and techniques. The course included students from Colombia, Dominican Republic, Ecuador, Paraguay, and Peru. DRMI is the official sponsor of the CMS and Dr. Angelis met with members of the WHINSEC faculty and staff during this visit to discuss curriculum issues as well as opportunities for cooperation between the two institutions.

Dr. Robert McNab serves as discussant at American Economic Association meetings

Dr. Robert McNab served as a discussant on the National Defense Policy panel at the American Economic Association annual meetings in January 2010. Dr. McNab discussed the paper, "Can hearts and minds be bought? The economics of counterinsurgency in Iraq."

DRMI team bid protest process study, by Dr. Diana Angelis

The Office of Assistant Secretary for Acquisition, U.S. Department of the Air Force, tasked a study team at the Naval Postgraduate School to examine opportunities to improve the bid protest process and enhance performance, cost and schedule outcomes of Defense acquisition investments. Dr. Francois Melese was the lead investigator of the research team that included Dr. Diana Angelis and Dr. C.J. LaCivita as well as several faculty from Graduate School of Business and Public Policy (GSBPP). The results of the study were submitted to the U.S. Air Force (USAF) at the end of January 2010.

The goal of the study is to offer senior

decision-makers a useful framework and perspective to evaluate, articulate, and support protest policy recommendations that improve procurement outcomes. A key contribution is to add an economics dimension to a process mostly thought of in legal terms. The legal and regulatory literature that underpins the current protest system reflects two fundamental beliefs. Protests: a) deter fraud and errors in government procurements, and b) promote competition. This study explores the first premise through the economist's "principal-agent" framework, and the second with the aid of a representative bidder model. The aim is to examine opportunities to improve the efficiency

and effectiveness of the protest process to enhance performance, cost, and schedule outcomes of USAF acquisition investments. Acknowledging the substantial costs of operating a protest system to govern procurements and encourage competition yields one of the study's key insights: there exists an "optimum" rate of protests. The optimum rate of protests offers the most efficient and effective way to encourage competition and ensure the integrity of the acquisition process, while guaranteeing the best possible outcomes for our troops and taxpayers. The study concludes with a summary of proposed "change candidates" and some policy recommendations.

Ms. Kathi Noyes attends IMSO Conference



The Naval Education and Training Security Assistance Field Activity (NETSAFA) invited our Administrative Officer, Kathi Noyes, to attend the 23rd Annual International Military

Student Officers (IMSO) Conference in Pensacola, Florida, 26-30 October 2009. Approximately 150 people participated from all over the country. Speakers were comprised of Country Program Managers from NETSAFA, veteran IMSOs, security cooperation officers from South Korea, and representatives from the Defense Security Cooperation Agency (DSCA) and Defense Institute of Security Assistance Management (DISAM). Rear Admiral Joseph F. Kilkenny, Commander of the Naval Education and Training Command gave the welcome address and the keynote speaker was Captain Kevin Lyles, Director of Strategic Planning of the Navy International Programs Office. Subjects addressed included a cross cultural presentation, IMSO duties and responsibilities, Field Studies Program, medical and travel/ living allowance issues, foreign disclosure, security cooperation, and a briefing on the Defense Language Institute English

Language Center. The conference included an awards banquet honoring IMSOs of the Year and a Field Studies Program event to the Naval Aviation Museum.

Ms. Noyes earned 24 training hours as prescribed by the Department of Navy for professional certification in International Affairs Career Development.

Dr. Robert McNab serves as referee for the *Scottish Journal of Political Economy*

Dr. Robert McNab served as a referee for the *Scottish Journal of Political Economy*. The journal, a Wiley-Blackwell publication, is generalist and has an international reach both in terms of readership and authorship. It publishes high quality research in any field of economics. The editors encourage wide-ranging submissions, endeavoring to make practical contributions to the literature. The material the journal publishes is wide-ranging and includes microeconomics, macroeconomics, labor economics, monetary economics, industrial economics, international trade, international finance, financial economics and applied economics. •

Dr. Robert McNab to develop handbook on defense financial management

Dr. Robert McNab is leading an Office of the Secretary of Defense (OSD Policy) funded effort to develop a peer-reviewed best practices handbook on defense financial management. The purpose of this handbook is to survey the literature on best practices in defense planning, budgeting, and resources management and to develop an assessment questionnaire for countries participating in the OSD (Policy) sponsored Defense Institution Building program.

Dr. McNab, with the assistance of Ms. Kathleen Bailey, Research Associate, is currently contacting Subject Matter Experts (SMEs) in the area of public financial management for their potential involvement in the handbook project. Dr. McNab expects that, pending successful completion of this project, that the handbook would be published as an edited volume.

JIEDDO awards Dr. Robert McNab research grant to study reconstruction assistance and violence in Iraq

Dr. Robert McNab has received a research grant from the Joint Improvised Explosive Device Defeat Organization (JIEDDO) to conduct research on the relationship between the provision of reconstruction assistance and the violent activity in Iraq. This research is a continuation of a previous research grant led by Dr. Jomana Amara and Dr. McNab and is to be conducted in two phases. In the first phase of the research program, the research team, consisting of Dr. McNab and Ms. Kristen McGinnis, Research Associate, will work to update the previous research conducted by Dr. Jomana Amara and Dr. McNab. This phase will also survey the literature on the relationship between reconstruction and violence. In the second phase of the project, using data provided by JIEDDO, Dr. McNab and the research team will conduct spatial analysis of the correlation of reconstruction assistance and violent activity. This activity is tentatively funded at approximately \$200,000.

USSOCOM solicits Dr. Robert McNab for civil affairs education

The United States Special Operations Command (USSOCOM) J-5/J-7 invited Dr. McNab to participate in a video teleconference (VTC) on the education and training needs of the civil affairs community.

The United States Special Operations Command, J33-Civil Affairs, invited Dr. McNab to the Annual CA Senior Leader Conference, 20-22 January 2010, at MacDill AFB to assist in the development of a way ahead for joint Civil Affairs education and training. Dr. McNab discussed the development of a graduate education program for CA officers.

Dr. Francois Melese publishes technical report



Dr. Francois Melese published an Acquisition Research Program Sponsored Technical Report (NPS-AM-09-152) entitled "The Economic Evaluation of Alternatives (EEoA)." This study

offers a comprehensive set of approaches for procurement officials to structure public investment decisions. Designed to improve acquisition outcomes, the "Economic Evaluation of Alternatives" (EEoA) addresses a significant weakness in most contemporary military applications of the current methodology—the Analysis of Alternatives (AoAs). While AoAs correctly focus on lifecycle costs and the operational effectiveness of alternatives, "affordability" is an after-thought—at best only implicitly addressed as a weight placed on cost in the final stages of the analysis. In sharp contrast, the EEoA encourages senior analysts and decisionmakers to include affordability explicitly and up-front in structuring an AoA. This requires working with vendors to build alternatives based on a reasonable spectrum of possible funding (budget or affordability) scenarios. The EEoA solicits vendor proposals as functions of optimistic, pessimistic, and most-likely funding (budget) scenarios. This study also illustrates how, by embedding affordability directly into an AoA, the EEoA approach provides a unique opportunity for senior leadership to achieve a significant defense acquisition reform—to integrate Requirements Generation and Defense Acquisition with the Planning, Programming, and Budgeting System (PPBS). The report is available upon request by contacting fmelese@nps.edu.

TRAC-Monterey awards Dr. Robert McNab research grant to study corruption in irregular warfare

U.S. Army Training and Doctrine Command (TRADOC) Analysis Center (TRAC) awarded Dr. Robert McNab a grant to study the impacts of corruption on irregular warfare. The research team (at various levels of effort) consists of Dr. McNab, Dr. Jason Hansen, Ms. Kathleen Bailey and Ms. Kristin McGinnis. The research effort is part of a larger project that seeks to model corruption in an irregular warfare environment. The research team will conduct an extensive review of the literature and

develop a theoretical model of the interaction between corruption, violence, and economic development. The project aims to develop knowledge and algorithms to more accurately represent the influence of corruption in the irregular warfare environment. The project's first objective is to survey the economics, political science, and sociology literature as to the determinants and outcomes of corruption. Building upon the first objective, the second objective seeks to construct a theoretical model

(or models) of corruption, to include a model that explicitly incorporates the indirect effects of corruption on economic development and security. Finally, the third objective of this project is to assist in developing metrics to quantify corruption at the tactical and operational levels to help foster tools for advising commanders on corruption's influence in irregular warfare environments. This activity is funded at \$259,000.

Dr. Jay Simon attends INFORMS meeting



Dr. Jay Simon attended the annual meeting of the Institute for Operations Research and the Management Sciences (INFORMS) in San Diego on 11-14 October 2009. He chaired a Decision

Analysis session titled: "Preferences Over Intertemporal Outcomes," and gave a presentation in the session on his ongoing work on reference-dependent utility modeling. The session covered topics such as time discounting anomalies, risk perception over time, and a dynamic model for deterrence of terrorist attacks.

Dr. Simon also co-authored an INFORMS tutorial titled: "Multiple Objective Decision Analysis Involving Multiple Stakeholders" with Dr. L. Robin Keller and Mr. Yitong Wang. This tutorial illustrated

common decision analysis tools for the general INFORMS community through the use of several real-world examples. It is available as part of Tutorials in Operations Research, 2009.

Please feel free to email Dr. Simon at jrsimon@nps.edu for more information or to discuss any of these topics.

Dr. Natalie Webb as a referee for Voluntary Sector Review and Nonprofit Management and Leadership

Dr. Natalie Webb served as a referee for the *Voluntary Sector Review*. The journal, a Policy Press, UK publication, publishes high-quality, peer-reviewed, accessible papers on third sector research, policy and practice. It aims to be an invaluable cutting-edge resource for all those researching or working in the fast-growing voluntary, community and wider third sectors. Dr. Webb also served as a referee for *Nonprofit Management and Leadership*, a Wiley-Interscience publication. This journal aims to bring together the best thinking and most advanced knowledge about the special needs, challenges, and opportunities of nonprofit organizations by offering authoritative insights of top executives and scholars on the common

concerns of nonprofit leaders in all settings, including social services, the arts, education, foundations, community development, advocacy work, religion, professional associations, and others.

Publications

- Amara, J. & McNab, R. (2010). Is Iraq different? An examination of whether civilian fatalities adhere to the "Law of War" in the 2003-2008 Iraq conflict. *Defense & Security Analysis*. In press.
- Lipow, J. (2009). [Review of the book Castles, battles, and bombs: How economics explains military history, by Jurgen Bauer and Hubert Van Tuyll] *Defense and Peace Economics*, 20(5), 437-439.
- Lipow, J. & Melese, F. (2010). Does NATO have a role to play in the global financial crisis? *European Security*, 18(1), 55-62.
- Webb, N.J. & Richter, A. (2010). Strategy at the crossroads: Medical humanitarian assistance missions for Navy hospital ships. *Defense & Security Analysis*. In press.

Cashless Economy (Continued from page 1.)

From 1 October 2009 on, all major American purchases of local goods and services in Iraq and Afghanistan are being done via electronic fund transfers.

Kunkel's focus, however, was limited to an analysis of payments done by military forces, and he did not consider the implications or feasibility of the complete elimination of physical cash. The paper I am currently writing, "Counter-Insurgency and the Cashless Economy," extends Kunkel's analysis by considering the impact of the "cashless economy" - the complete elimination of cash as a means of payment at the national level – on counter-insurgency efforts, with a special focus on Afghanistan and Iraq. The paper tries to answer three questions. First, is it feasible for Afghanistan and Iraq to eliminate the use of cash as a means of payment? Second, would implementation of a cashless economy in these countries impede insurgent operations and offer Coalition forces meaningful military advantages? Finally, would implementation of a cashless economy promote economic development in Afghanistan and Iraq? Let's consider each of these questions in turn.

A. Feasibility

To date, no country has completely eliminated the use of physical cash, and only Singapore has articulated a plan to do so. Nevertheless, for many years there has been a steady decline in the proportion of transactions financed through cash, and a 2002 Organization for Economic

Cooperation and Development (OECD) report, entitled, The future of money, on the subject confidently concluded that, "the future of cash is digital." Is it possible, however, for countries as undeveloped as Afghanistan or Iraq to leapfrog past nations with more sophisticated financial and information technology (IT) infrastructures and implement truly cashless economies within a time frame meaningful in terms of Coalition counter-insurgency efforts? Remarkably, the answer to that question is affirmative. By choosing the right technology and institutional framework, it is entirely feasible for countries like Afghanistan and Iraq to implement cashless economies in the near term.

The type of technology required involves smart cards similar to the Common Access Card (CAC) we use at U.S. Department of Defense (DoD) every day. The cards use biometric (fingerprint) data as a means of identification. This greatly reduces the risk that these cards can be stolen or counterfeited. Funds are transferred to and from the cards through a system of battery powered "Point of Sale" (POS) terminals. Biometric smart cards and their associated POS terminals can be built into a electronic payments system that can efficiently and securely handle the smallest transactions, even in regions isolated from modern telecommunications or the power grid, or in other words, in places like Afghanistan or the more remote corners of Iraq.

Smart card systems of this type already exist and are being used in countries like Ghana and South Africa as an electronic substitute for cash in various applications. This technology has also been deployed in Iraq, where biometric smart cards and their associated POS terminals are exploited to distribute social welfare payments to roughly one million recipients. As a result, much of the technological infrastructure required to implement a cashless economy through smart cards already exists in Iraq, and based on Iraqi experience, could quickly be deployed in Afghanistan.

What about cost? POS terminals cost between \$100 and \$200 each, while signing up users costs roughly \$5 each. As a result, physically setting up a system for 20 million users (with one million POS terminals) would cost somewhere in the neighborhood of \$250 million. There would be additional expenses as well, but implementation of a cashless economy in Afghanistan or Iraq could reasonably be expected to cost less than \$500 million. There would, of course, be additional costs associated with operating such systems, but relative to the size of the economies in these countries as well as the scale of the Coalition war effort, the cost of implementing a smart card based electronic payments system is remarkably small.

B. Military Benefits

Clearly it is feasible to eliminate the use of physical cash in Afghanistan and Iraq,

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Cashless Economy (Continued from page 15.)

but would such efforts yield any meaningful military benefits for Coalition forces? Kunkel (2008) addresses this question at length, focusing on how electronic transactions generate audit trails that can be used to track down insurgents, while cash-based transactions are anonymous.

In addition, however, to auditable electronic "paper trails," the complete replacement of physical cash with payments based on biometric smart cards offers several additional military advantages of perhaps equal importance. For example, insurgent groups would find it more difficult to smuggle in and deploy foreign combatants. Foreigners who have entered the country illegally would either have to get access to a biometric smart card that essentially cannot be forged, or alternatively would find themselves unable to engage in numerous mundane transactions (like getting on a bus or topping up pre-paid time for their cellular phones) - something that would greatly handicap their physical movement.

Insurgent groups would also find themselves unable to stash funds in locally currency. Their alternatives would be to hold their accumulated funds in electronic accounts – leaving these funds vulnerable to identification and confiscation – or to hold their funds as foreign currency. This would expose insurgent finances to foreign exchange risks that could seriously complicate their planning and budgeting.

Finally, the electronic payments system could be exploited not only to identify insurgents, but also to help catch them. System users identified as "wanted for questioning" - either due to suspicious financial transactions they have engaged in or due to other intelligence - could find that their cards are cancelled. This would leave insurgents with two unappealing alternatives. One would be to write off the funds that were in their electronic accounts and accept that they are now unable to engage in many of the day-to-day transactions they need to do in order to operate or even to move about. This would leave them more vulnerable to capture, while

leaving no doubt that they are involved in illegal activity. The other alternative would be to show up at a government office to request that their card be reactivated - something that could result in their apprehension if they were unable to provide sufficiently convincing explanations for their actions.

C. Economic Benefits

Since it has never been done before, no one knows for sure whether the complete elimination of physical cash would be economically beneficial. Effectively all scholars who have studied the subject believe, however, that implementation of a cashless economy should generate meaningful economic advantages. To some extent, this view is based on observation of the economic benefits that have accrued as electronic payments systems have gradually supplanted cash transactions in developed countries.

It is widely believed that a cashless economy would be of even more benefit for countries like Afghanistan and Iraq. For example, the same electronic audit trails that handicap insurgent activity would also make it more difficult to engage in corrupt activities like the embezzlement of government funds or the acceptance of bribes. Since corruption is one of the major impediments to economic development in these countries, this could prove an important benefit.

Also important, the ability to pay electronically makes it easier for people to do business on every level. This greater convenience translates into lower transaction costs, and that translates into greater business activity and economic development. Experience in many countries suggests that, in particular, access to electronic payment systems facilitates the distribution of financial services such as savings programs, credit provision, and insurance.

D. Conclusion

From a "first pass" analysis, it appears that implementation of a cashless economy

through the introduction of smart card based electronic payments systems represents a realistic near term alternative that could be exploited in Afghanistan and Iraq in order to impede insurgent operations while possibly promoting economic development in those countries. The suggestion merits further study. For a full management system, CBP "...should be an effective investment strategy that develops and sustains the capability priorities identified through the planning exercise" (Fitzsimmons 2007) where the United States Department of Defense (DoD) defines a capability as the ability to execute a specified course of action (DoD 2005). CBP's proposed benefits are that it serves to focus a defense organization on what it needs to accomplish instead of concentrating on the platforms and systems it already owns. The real worth of systems and platforms is what they can do in times of need. Therefore, CBP aims to delay a decision on specific systems by first having planners consider what abilities are required and then encouraging the development of more innovative alternatives. This process is designed to help overcome the tendency to simply replace platforms and/ or equipment with like-for-like. CBP also aims to broaden the range of missions for which forces are prepared, make the joint perspective predominant in all planning and programming activities, and use risk as a strategic measure of effectiveness (Fitzsimmons 2007). While ultimately CBP will suggest systems and platforms to perform the needed capabilities, it attempts to move away from suggesting solutions too early in the process.

The first step in CBP must therefore be a strategic analysis of the future environment to help decide what capabilities may be required in the next 20 to 50 years. Examining stated political guidance for the defense organization, which typically provides strategic goals and objectives, as well as looking for issues that may require defense department attention, can identify strategic issues. Decision makers commonly use a

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Cashless Economy (Continued from page 16.)

method that identifies and assesses defense strengths, weaknesses, opportunities and threats/challenges (SWOC analysis) facing their organization to determine potential strategic issues. Strengths and weaknesses have an internal focus; opportunities and challenges are external. To help in this analysis, a group of capability planners and developers devise scenarios to help planners acknowledge and prepare for uncertainty. Planners need to take a sufficiently broad view of possible future global conditions in which the defense organization will be asked to function. While it is easy to imagine small changes to the status quo, it is far harder to imagine major shifts in the geopolitical landscape. However, history has given us numerous examples that we need to expect the unexpected and that the future will be very different from the current state. For example, consider planning for a 15-year time horizon at the beginning of the 20th century. In 1900, would defense agencies have been able to predict the world reality as of 1915; in 1915 the reality of 1930; in 1930 the reality of 1945; and in 1945 the reality of 1960? Predicting such "tectonic shifts" in world landscape is nearly impossible because how do you tell a realistic future from science fiction - or when can you expect what you think of a science fiction to turn real? While there is no concrete answer to these questions, the goal of strategic planning is to confront rather than discount - uncertainty and to consider robustness across a wide variety of futures.

Scenarios should be designed to facilitate planning for uncertainty. A group of capability developers, together with planners, typically define a baseline scenario along six dimensions - the political military context, e.g. how the situation came about, who is allied with whom, the degree of strategic warning, forward stationing of forces; objectives and strategies of those involved; forces, such as size, character, nominal capabilities; force effectiveness, accounting for cohesion, morale, etc.; environment; and other assumptions. The next step is to look for likely variations and consider the consequences and then look for unlikely variations that may have

very serious consequences. Planners should choose to focus on scenarios that they deem to be of high risk, risk being defined by what can go wrong, the likelihood that it happens, and the consequences if it does. Therefore, the focus will be on a combination of scenarios that are very likely and have negative consequences or scenarios that are unlikely but have extensive negative consequences. A further selection will need to be done to choose some of these scenarios for further in-depth study, usually based on perceptions of risk, politics, and the ability to cover a broad spectrum of possibilities.

The next step is to use these scenarios to identify, "the complete set of capabilities considered necessary to meet the quantitative and qualitative ambitions set out in the political guidance for defense planning through a structured, comprehensive, transparent and traceable process..." (NATO 2008).

A useful approach is to develop capability trees for each of the scenarios. A capability hierarchy is a visual representation of the elemental capabilities required to address the scenario. The idea is that to do this big capability, we need to have these smaller and more precise capabilities. It is an "and" logic. At the base are the elemental capabilities needed to address the scenario. If at any point in the structure, you find yourself using an "or" structure then you are talking about alternatives, and you need to go back up a level.

For example, imagine the following scenario. A small African country experiences a civil war and government has appealed to international organizations for help in stabilizing the country. Adapting from the U.S. Army Field Manual FM-307: Stability Operations, a possible partial capability hierarchy is shown below in Figure 1. To further break down the capability or "Detain Objective," we might consider using the military police or special forces or a regular army unit. However, this means that we have passed from an "and" logic to an "or" logic and these forces are actually alternative means of achieving the capabil-

ity. Therefore, the elemental capability is "Detain Objective," the lowest possible level on the hierarchy. Elemental capabilities must be defined well enough so that planners can match them with existing and potential assets. Capability developers may list elemental capabilities multiple times in the hierarchy; the exact construction of a hierarchy is always an art, not an exact science.

Capability developers need to develop the capability hierarchy to a level where you will be able to identify which of your units (systems) are capable of doing the task but not to a point where one and only one asset can do it. Remember, this is not an exercise in military operations planning. The most common pitfall with this approach is that organizations go too far down the hierarchy, to the point of specifying the alternatives. Of course the alternative specified is based on the analyst's background. Armored division officers will usually require tanks and air force officers will require planes, etc. It is critical to ensure that we stay at the capability level.

Once we have a capability hierarchy for each scenario, we can see the full spectrum of elemental capabilities that address multiple or all scenarios. Listing elemental capabilities multiple times in multiple trees requires aggregation across scenarios to determine defense's total need for a capability. To help determine this quantity, planners consider the relative importance and likelihood of a scenario and the stated level of effort or national goals (or coalition goals or alliance goals) In addition, planners determine whether the capability is likely to be needed sequentially or concurrently in the hierarchies and in the scenarios In the end, a country and its defense planners would like to have a master list of elemental capabilities across scenarios and the requirement for concurrent use of each. This estimation requires much subjective assessment on how to best combine the quantitative amounts derived from the capability hierarchies. No "one

(See "Cashless Economy" on page 18.)

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size fits all" or best aggregation method exists.

Once developers list required capabilities, they and defense planners need to determine if gaps exist relative to the current force structure. The best way to do this is to consult a program structure of the armed forces. Planners could use an existing program structure or could modify the program structure based on capabilities. If resource managers structure the program structure by sorting and arranging the same elemental capabilities listed in the risk hierarchy, they may simplify the process resourcing to meet strategic goals. A mapping can be made as long as resource personnel and capability developers list every asset in the program structure once and only once (mutually exclusive and collectively exhaustive) into groups of substitutes and complements. Program structures that cannot work include those that list armed forces by service (which, by definition, is not not a program structure) because the primary categories in the program structure reveal nothing about the purpose of the category.

For each elemental capability, examine all in-house units and determine whether they can be used to provide the desired capability and, if so, how well can they provide the capability. This involves a valuation of the services the units provide. For example, with "Detain Objective" we had three alternatives – the military police, special forces, and a regular army unit. We now need to know how many military police units we have and how we value them with respect to the elemental capability "Detain Objectives." Suppose that we assess military police units as the best

way for handling the elemental capability so we give them a score of 10 out of 10. Special forces may only be a 7 out of 10. A regular army unit may be valued at 6 out of 10. Using this valuation and the physical amount of the forces available will determine the amount of in-house capability available. Special care must be taken to account for concurrency and exclusivity of forces since one alternative (such as a regular army unit) can provide multiple elemental capabilities. Since we know how much of each elemental capability we need concurrently, we can estimate gaps across all elemental capabilities simultaneously. The gaps where elemental capabilities cannot be provided by existing forces become apparent. In addition, we may find existing forces that are not needed for any elemental capability. These would then be candidates for retirement, potentially freeing additional funds for finding ways to eliminate the gaps.

The next step is to develop a prioritization of the capability gaps that have been identified. To do this, we first need to determine the relative importance of the elemental capabilities. Relative importance is frequently based on some combination of the following: in how many of scenarios are they are used, how many times are they used in each scenario, and the relative importance (in terms of risk) of the scenarios. There are numerous mathematical procedures for counting these responses and each CBP implementer will need to decide for themselves how to do this in detail. Once we have a sense of the capabilities' relative importance, we now need to assess the risks posed by the capability gaps. Usually, this is a combination of the importance of the elemental capabilities

and the importance of scenarios that have capability gaps.

After prioritization, capability developers, planners and resourcers consider alternative ways to fill the gaps. There may be many different ways to eliminate the gaps without necessarily resorting to major weapons platform purchases, such as changes in doctrine, training, etc. The six scenario dimensions can help facilitate development of alternatives since they highlight all of the important facets that contribute to a scenario's risk. The analysis of alternative ways to eliminate gaps should include costeffectiveness and cost-risk concepts and the ability to trade-off one alternative with another. Maintaining the ability to conduct trade-offs means that the elemental capabilities cannot have been over specified. If each elemental capability has one and, only one, way asset to address it then the purpose and spirit of the CBP has been negated.

New systems and/or new approaches are assessed on their contribution to all capability categories. The remaining problem is a portfolio analysis –which combination of alternatives will produce the greatest increase in capabilities in the most important capability gaps while remaining within the budget.

The final steps include positioning the new capabilities within the program structure, developing an acquisition strategy, and ensuring all necessary costs are included in the budget as well as the future years defense plan (FYDP). Dr. Natalie Webb will provide a more detailed discussion on the programming and budgeting in a future issue of the newsletter.

Future Mobile Courses

Calendar Year 2010

Dates Country

3-14 May Kazakhstan

10-14 May Iraq 7-18 Jun Malaysia

Future Resident Courses

Calendar Year 2010

Course Name	Course Number	MASL Number	Dates	Duration (Weeks)	Pairing Option
Streamlining Government	SGOP 10-1	P162011	24 May-28 May	1	DRMC 10-2
Defense Resources Management Course	DRMC 10-3	P162002	24 May-18 Jun	4	
Senior International Defense Resources Management Course	SIDMC 2010	P162004	28 June-23 Jul	4	
Defense Resources Management Course	DRMC 10-4	P162002	26 Jul-19 Aug	4	MCDM 10-1
Risk Management Course	RISK 10-1	P162000	09 Aug-20 Aug	2	DRMC 10-5
Multi-Criteria Decision Making Course	MCDM 10-1	P162012	23 Aug-03 Sep	2	DRMC 10-4
Defense Resources Management Course	DRMC 10-5	P162002	23 Aug-17 Sep	4	BPEA 10-1 or RISK 10-1
Budget Preparation, Execution and Accountability Course	BPEA 10-1	P156600	20 Sep-29 Sep	2	DRMC 10-5
International Defense Resources Management Course*	IDMC 10-2	P162003	27 Sep-10 Dec	11	

 $[\]ensuremath{^{*}}$ This course convenes in one fiscal year and continues into the next fiscal year.

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Ms. Charlie Orsburn, DRMI Field Studies Program Manager, has established a DRMI presence on Facebook. Facebook is a free-access social

networking website; the site offers a method for "friends" to easily exchange electronic messages and digital photos at no cost. Facebook is very user-friendly and it's quite easy to sign up for and use an account. Ms. Orsburn has created photo albums for several classes and events, including a variety of receptions and tours. To find DRMI on Facebook, search for "Drmi Courses" and click on the "Add as Friend" button. It would be extremely helpful if past participants would indicate when they attended DRMI at the time of the friend request. At the last count, DRMI had 57 friends; would you be our next?

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