Days of Intrigue

What are Russia’s intentions in Eastern Europe? This question, currently under discussion in the Intelligence Community, was also the subject of inquiry among the 83 students who gathered at the University of Mississippi on March 20-21 for the 7th annual “Days of Intrigue” intelligence exercise. Whether a simulation veteran – as many Ole Miss students were – or a newcomer, the “Days of Intrigue” exercise was received with great enthusiasm and acknowledged as a terrific learning experience.

Students from California State-San Bernardino, Eastern Kentucky University, Florida International University, Penn State, University of Nebraska-Lincoln, University of Oklahoma, University of South Florida, and University of Texas Pan American joined Ole Miss students to consider myriad factors impacting Russia’s motivations and actions on the global stage. Led by practitioners from the IC, students became CIA, DIA, FBI, NGA, NSA, and State professionals for the 1.5 day exercise. Additionally, a team served as White House policymakers, and another represented Russia.

The teams used open source intelligence, created evidence from the “white cell” and details shared by other agency teams to develop assessments and recommendations for consideration by the policymakers. The teams quickly discovered the importance of collaborating with

(Cont’d on P4)
Greetings to all with best wishes for a sun-filled spring! In addition to our delayed visits to the IC CAE community of schools due to government travel restrictions at the start of the new fiscal year, the winter also posed an obstacle to our plans for engagement and collaboration. That did not deter our Program Managers, Melissa and Julea, from reaching out to you telephonically, and we have already renewed a travel itinerary designed to bring the requested workshops and program staff visits to you in the coming months.

An initial look at the data recently collected describing the first semester at our IC CAE schools shows much activity, creativity and initiative. The established programs have, for example, expanded their course offerings, scheduled colloquia and seminars and engaged in well planned and informative visits to the intelligence agencies here in the Washington DC area. The newest programs, having come on board only this academic year, are designing, developing and implementing the intelligence-related framework aligned to their specific curricula. To both groups, we offer advisory services through our program development subject matter experts available from the intelligence agencies. Let our program managers know that you would like a consultation and we can arrange a teleconference or site visit to discuss best practices in program design.

The Five Eyes Analytic Workshop recently held at the University of Mississippi was a terrific learning and networking event. Kudos to Ol’ Miss for a job very well done! Both Dr. Jensen and Ms. Graves have lived up to their reputation for quality intelligence gatherings. The follow-on “Days of Intrigue” simulation activity was also extremely successful in providing an excellent learning and collaboration experience.

We are now planning the annual IC CAE meeting, which will include a professional development segment for the Principal Investigators and their faculty. Members of the Senior Advisory Board for our CAE community, who represent senior leadership at each of the IC agencies, will attend the annual meeting and will be available for conversation and questions. Additional information about this event will be forthcoming soon.

As always, we encourage you to submit notices of intelligence-related events you are planning, such as colloquia and seminars, to which other members of our community are invited. Collaboration and networking made possible through these events are important and highly encouraged. Likewise, submission of articles about current research, papers and presentations by your students allow them to reach others working in the same area for collaboration and feedback. A published piece in the Impariamo is a resume enhancer!

With all good wishes for continued success,

Edie Alexander
Dr. Edith Alexander
IC CAE Program Director
Practitioners, students, and faculty came together at the University of Mississippi March 17-19 to take part in the 5Eyes Analytic Workshops, including representatives from nine U.S. academic institutions, eight government agencies, and two foreign partners. Topics examined at the Workshops followed the theme “Analytical Education and Training in the Year 2020: Issues and Challenges.”

John Smart, President of the Acceleration Studies Foundation, a non-profit that helps organizational leaders better understand and manage accelerating technological change, delivered the keynote address on Analytic Education in 2020: Foresight Skills and Insights for Intelligence Leaders. Mr. Smart discussed challenges and opportunities in analytic education during periods of accelerating technological change and recommended eight skills for managing and succeeding in such an environment.

IC CAE student presenters included Roya Gordon and Felix Reynoso, FIU, who discussed climate change and security; Amuru Serikyaku, USF, who examined Kurdish statehood; Shelby Thomas, USF, who discussed Japan/U.S. relations; and Kendal Tracy, USF, who reported on the potential for the Liberation Tiger of Tamil Eelam (LTTE) re-emergence. In addition, Ole Miss students enrolled in an upper level Advanced Analytics course shared their experience in applying Structured Analytic Techniques to a cold case examined through NPR’s Serial broadcast.

Other presentations by CAE school representatives included an examination of computer-based tools to support detection and interpretation of statistical correlations in large databases by Dr. Larry Regens and Dr. Nick Mould, University of Oklahoma; and a facilitated discussion on training analysts for the future by Dr. Carl Jensen, Ole Miss. Additionally, Dr. Edie Alexander, CAE Director, shared the fundamentals of the CAE grant program and described the work of the CAE Program Office.

The Workshops provided a great forum for discussion and sharing. Thank you to the faculty, staff and students at the Center for Intelligence and Security Studies, University of Mississippi, for hosting this important event!

Mark your calendar now to attend the next 5Eyes Analytic Workshops to be hosted by the Canadian Forces Intelligence Command in Ottawa, Canada, October 27 – 28, 2015.
other agencies to best serve their policymaker client, and found themselves in the position of defending their assessments to the policymakers during regularly scheduled briefs.

At the close of the exercise, the IC professionals who served as mentors offered the following insight to the participants:

- IC successes are the result of collaboration
- Understand the relationship between analysts and policymakers – it is a client relationship based on trust
- Recognize the distinction in describing what you know versus what you think
- Maintain knowledge of international affairs regardless of area of expertise; decisions are not made in a vacuum

Dr. Carl Jensen, Director, Center for Intelligence and Security Studies, University of Mississippi, closed the exercise with praise to the students for their analysis of the data, and commented he is glad they “are on our side!”

**USF Conference**

*By Walter Andrusyszyn*

The phenomenal rise of the Islamic State in Iraq and Syria, also known as ISIS, has created a profound national security threat to the United States. However, ISIS is only one aspect of a much broader and important phenomenon in the Islamic world, namely extremism.

With the support of the Center for Academic Excellence, the University of South Florida held a one-day conference on January 15, 2015 to examine the causes for, and manifestations of, extremism in the Greater Middle East and their implications for American national security interests.

Vice Admiral Mark Fox, Deputy Commander of U.S. CENTCOM, kicked off the conference with a conversation about U.S. CENTCOM’s approach to “degrading and ultimately destroying” ISIS.

Mr. Mike Morell, former acting director of the CIA, closed the conference with a conversation that covered a variety of issues, ranging from extremism and terrorism to the great challenges that the United States is likely to face in the coming decade.

The conference also heard from six other leading experts about extremism. Following the presentations by all of the distinguished guests, the audience had ample time to ask questions and to engage our speakers.

The conference received considerable media attention. At any one time throughout the day, some 200 people attended the conference. The audience consisted of students, faculty, members of the community and a good number of military personnel from CENTCOM and SOCOM.
The Florida International University (FIU) Program in National Security Studies (PINSS) offers a variety of programming options for university students, including graduate and undergraduate academic certificate programs in National Security Studies, an unpaid internship program with the U.S. Southern Command, and an annual Colloquium. Of particular note and interest to university students are the not-for-credit PINSS Mentor Seminars.

Consisting of five separate 3-hour Friday afternoon sessions during each of the Fall and Spring semesters, the Seminars are intended to help students gain an understanding of the Intelligence Community and provide a forum for skills development and networking. The first seminar of the semester typically focuses on careers and student opportunities. PINSS staff provide an overview of the IC, an explanation of the program’s designation as an Intelligence Community Center for Academic Excellence, details on aspects of the PINSS program and course offerings. Agency representatives, from the Washington, D.C. area and from local IC components, brief students on careers, student opportunities, the application process and security background checks. The Spring 2015 Career Panel included CIA, DIA/SOUTHCOM, FBI, NSA and State Department representatives. One student in attendance spoke of her current Coast Guard involvement.

Other Seminar sessions provide students with active learning exercises that help develop critical thinking and analytical skills sets. A senior CIA officer conducted an analytic writing exercise during the second Spring 2015 Seminar, and planned Seminar sessions include DIA analysts conducting an exercise on the Impact of Emerging Technologies on Terrorist Adaptation and Innovation and a session conducted by an FBI analyst and a special agent. The final session of the Spring Seminars coincides with our Annual Colloquium. A variety of government officials, academics and students will participate in this year’s Colloquium on Border Security.

The Fall 2014 Seminars included a session on critical thinking conducted by a DIA analyst working in SOUTHCOM’s J2 Directorate of Intelligence and another session during which five representatives of the Miami FBI Office led students through a Surveillance exercise. Seminar students may also run through a simulation exercise developed for the PINSS High School Outreach effort and then volunteer as Facilitators during the actual high school event, assuring the success of the exercise.

Students who complete four of the five PINSS Mentor Seminars receive a Certificate of Completion and are encouraged to include the Mentor Seminar, along with specifics of the experiential exercises in which they participated, on their resumes to document this valuable university extra-curricular activity.
As the cyber threat against the United States continues to grow, the intelligence community is projected to dramatically increase the number of cyber security professionals within the next five years. However, the intelligence community still faces challenges communicating technical information to non-technical analysts and policymakers.

Late in 2013, the National Science Foundation awarded California State University, San Bernardino (CSUSB) with a $485,000 grant to further develop its security studies and cyber security programs. Dr. Mark Clark, director of the National Security Studies program, and Dr. Tony Coulson, director of the cyber security program, were awarded the funding to create two competitive new degrees in cyber security and intelligence at the undergraduate and graduate levels. In addition, part of the grant objective is to create a national model curriculum to be disseminated through the Cyber Security Centers of Academic Excellence and the Intelligence Community Centers of Academic Excellence.

Starting in fall 2015, prospective students interested in intelligence analysis and information assurance will be able to take advantage of the new Master of Science in National Security Studies (Cyber Security) at CSUSB. The new M.S. degree will equip students with analytic techniques to analyze the dynamic and complex world of cyber security and communicate that technical information to non-technical decision makers. Students in the new NSS degree will benefit from cyber and intelligence simulations, interactions with intelligence professionals, and challenging course curriculum.

“Merging the disciplines of political science, business, and information systems, the new Cyber Security M.S. program will offer CSUSB students an innovative educational experience that will prepare them for the multidisciplinary tasks faced in the industry. Students will get a hands-on experience in an ever changing field with ground breaking curriculum, making them competitive for success in their future careers.” - Jared D.

“As our society becomes more dependent on technology and automation, we’re finding that today’s greatest threats are online. Cyber defense is a vital component to US national security, and this program is an amazing opportunity to educate aspiring analysts and policymakers.” - Alexander M.

Although the new M.S. in NSS is not available until fall 2015, several students have already taken advantage of the new relationship between cyber security and the national security studies program. Students have had the opportunity to work on cyber security challenge projects for an agency of the Department of Defense, and several students in the NSS program have begun working with Dr. Vincent Nestler, a professor in cyber security, to create exciting, interactive cyber and intelligence simulations.

The cross pollination between the National Security Studies program and the Cyber Security program at CSUSB will undoubtedly provide the intelligence community with future analysts who will bridge the gap between the technical cyber professionals and non-technical decision makers who must address this growing threat. And while the new M.S. is not available until fall 2015, it is already making waves in the academic and intelligence community.
The core objective of the University of Oklahoma Center for Intelligence and National Security (CINS) is to provide the academic foundation necessary for a diverse pool of high-quality STEM (science, technology, engineering, and mathematics) and critical language students to acquire unique skill sets, enrichment experiences, and the personal motivation required to be successful candidates for entry into IC careers. The OU-CINS employs a multi-pronged strategy to mentor the next generation of scientists, engineers, mathematicians, and linguists in order to develop the workforce necessary to ensure the Nation's security. To achieve this vision, we seek to stimulate interest among undergraduate and graduate students with strong STEM and critical languages backgrounds in pursuing IC careers by offering them opportunities to pursue an academically rigorous intelligence and national security curriculum combined with meaningful enrichment experiences and engagement with IC professionals.

In the Fall of 2014, we completed development of new course focused on teaching technical intelligence collection methods and surveillance video processing algorithms to STEM students through the OU School of Electrical and Computer Engineering. The course entitled "An introduction to technical intelligence collection and surveillance video processing methods," is designed to provide junior and senior level undergraduate STEM students the opportunity to learn the fundamentals of technical intelligence collection and surveillance video processing from a variety of different perspectives. The course consists of five individual homework assignments that emphasize algorithm development, critical thinking, and writing; and one group project that emphasizes research, organization, writing, and presentation. In addition, to the homework assignments and group project the course features multiple guest speakers from the intelligence community that provide experiential depth. The course is essentially focused on two main topics (1) understanding the current state of technical intelligence collection methods and (2) surveillance video processing.

At the beginning of the course, students are divided into groups and instructed to identify a taxonomy of
scientific and technical intelligence collection techniques. For each leaf and node in the taxonomy they compose a brief written summary and present their findings to the class. Upon completion of the group presentations, the class as a whole examines the technical collection methods found by each group and aggregates them into one list. Finally, each group uses the class list of collection methods to propose and defend their own taxonomy. With this approach, students demonstrate an in-depth understanding of the existing technical intelligence collection process by first performing a literature review and then using that information to propose and defend an alternative organizational structure. The video processing portion of the course is divided among four individual programming projects that emphasize algorithm development and one homework assignment that focuses on individual writing skills. Surveillance video processing is taught from the signal processing perspective, where each video is considered to be a stochastic process. The first programming project is designed to familiarize students with MATLAB, images, videos, and the comparison of sample probability distributions. In the remaining three programming projects, the students implement the following statistical video processing algorithms: (1) the single Gaussian model, (2) the Gaussian Mixture Model (GMM), and (3) the nonparametric Kernel Density Estimation (KDE) method. In the individual writing assignment each student performs a guided and in-depth literature review of a single research article that they select from a list. The list of available research articles is restricted to statistical video processing algorithms from the past 20 years.

At the conclusion of this course, the student will have a broad general understanding of scientific and technical intelligence collection methods and technologies. The student will have specific demonstrated knowledge of selected surveillance video processing algorithms and statistical video modeling techniques.

Nick Mould is a Fellow in the University of Oklahoma Center for Intelligence and National Security. Dr. Mould has a Ph.D. in Electrical and Computer Engineering. He has expertise in signal, image and video processing; computer vision; and stochastic signal processing.