PSCI 621:
STRATEGIC INTELLIGENCE (12382-01)
SYLLABUS
Dr. William C. Green
Winter 2006
SB-214, T 6:00-9:50

Intelligence -- accurate, up-to-date information about unfolding world events -- is crucial to the successful conduct of U.S. foreign policy.   Nations survive and prosper on the basis of their ability to gather, evaluate, and understand information about their world. This course is intended to introduce graduate students to the various methods by which the United States intelligence community collects information, some of the analytical techniques by which it processes the information and turns it into finished intelligence, and above all, the organizational and management approaches by which all this is accomplished.

This course begins with a brief examination of the structure of the U.S. intelligence community, focusing on the individual agencies, their specific jurisdictions, and their ties to the remainder of the U.S. foreign policy establishment. This is followed by exploration of the various means of intelligence analysis and collection, including both technical and human sources. Techniques of analysis and dissemination will then be covered. The course will conclude with discussion of various proposals under consideration to assist the intelligence community transition from its Cold War missions to priorities that better suit the current world scene, and to address shortcomings certain observers see in its structure, functioning, and performance.

COURSE REQUIREMENTS:

- o   Weekly quizzes (10%)
- o   Imagery interpretation exercise (10%)
- o   Current Intelligence exercise (group project, 20%)
- o   Competitive Intelligence Estimates exercise (group project, 35%)
- o   Final examination (25%)

There will be a study guide for each class session, to include assigned and recommended readings, terms and questions for study, and other information. *No questions will be asked on the final examination that do not appear on these study sheets*. The study guides will serve as a review guide for the examinations and as a bibliography for research.

By all means, keep a copy of the papers and other assignments handed in for this and all other classes. Even the best-organized professors occasionally mislay papers, and a promptly produced photocopy can remove all doubt as to whether or not an assignment was actually completed.

If you are in need of an accommodation for a disability in order to participate in this class, please let me know ASAP and also contact Services to Students with Disabilities at UH-183, (909)537-5238.

A unique feature of this course is the opportunity it provides the participants to develop leadership and analytic management skills. The Current Intelligence exercise will require at a minimum two branch chiefs and two deputy branch chiefs, and the Predictive Intelligence (NIE) exercise will require at a minimum a Team Leader and a Deputy Team Leader. Please let Dr. Green know immediately if you are interested in a leadership role or if other commitments make it impossible for you to assume one. Several graduate students who have completed this course in a previous iteration will serve as the Senior Review Panel, playing a similar role to the Senior Review Panel maintained by the U.S. National Intelligence Council. The members of the Senior Review Panel for AY2006 are Mohammad Asrar uthmantis@hotmail.com, Filomeno Batayola fbatayol@csusb.edu, Cynthia Prewitt capre@cox.net or capre55@hotmail.com, and Jennifer Rustigian jennrustigian@yahoo.com.

OFFICE HOURS: Monday, 4:00-5:30 p.m.; Wednesday, 4:00-5:30 p.m.; or by appointment. You may request an appointment with me any time via E-mail. Office: VA-218, telephone: (909) 537-5414; e-mail: russgrin@csusb.edu (office) and russgrin@earthlink.net (home). When e-mailing me you should send your message to both addresses.

E-mail is increasingly becoming a vital means of communications in government, business, and the professional world. It is also essential to participation in this class. CSUSB students are entitled to free e-mail accounts. Every student in this class should be in e-mail communication with me by the end of the first week of classes.

This class is supported by BlackBoard, a password-protected course management software system. Students enrolled in the course may access Blackboard at http://blackboard.csusb.edu. If you are in the process of enrolling, see me and I can give you access to the class. All students should regularly review the course BlackBoard site to ensure they receive all class announcements and materials. In particular, students will need to access BlackBoard in order to

- obtain non-textbook course readings
- obtain the weekly Study Guides
- receive class and university messages
- communicate with other students in the class
- obtain lecture PowerPoint files in order to print out note-taking guides
- use the drop box to submit electronic copies of all course materials. (Note that I also ask for paper copies and use the latter to grade the assignment.)

I read and archive many intelligence-related publications and websites. All students in this class will automatically receive copies of the publications and news items I archive so long as it is in session. At your request, I will keep you on my distribution list for intelligence-related materials once this course is completed.


READINGS REQUIRED FOR PURCHASE

Owing to the fluid nature of events in the subject covered by this course, all reading assignments for the course are provisional and subject to change, as noted on the lecture study guides. All readings except for books required for purchase will be on reserve at Pfau Library or provided in electronic format. The books noted below are available at the bookstore.

Mark M. Lowenthal, *Intelligence: From Secrets to Policy*, 3rd
    edition (Washington, D.C.: Congressional Quarterly Press,
    2005), 334 pages. ISBN 1-933116-02
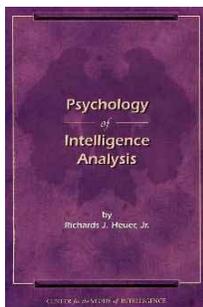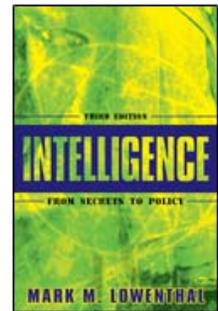
Richards J. Heuer, Jr., *Psychology of Intelligence Analysis*.
    (Washington, D.C.: Center for the Study of Intelligence,
    1999.) This work is available for download at
    http://www.odci.gov/csi/books/19104/index.html or an .rft
    formatted version is available from Professor Green.

William E. Odom, *Fixing Intelligence : For a More Secure
    America*, second edition (Yale University Press,
    2004), 288 p. ISBN 0300103042
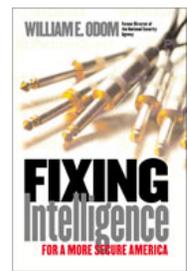
LECTURE OUTLINE:

Lecture 1:   Defining Intelligence
Lecture 2:   Current Intelligence
Lecture 3:   Open Source Analysis (OSINT)
Lecture 4:   Overhead Collection
Lecture 5:   Imagery Analysis (IMINT)
Lecture 6:   Research and Predictive Intelligence
Lecture 7:   Signals Intelligence (SIGINT)
Lecture 8:   Measurement and Signature Intelligence (MASINT)
Lecture 9:   Human Intelligence (HUMINT)
Lecture 10:   Producer-Consumer Relations

COURSE SUMMARY
(Readings and schedule subject to change)

WEEK ONE: January 11, 2006

An orientation to the course, introduction of the instructor, and explanation of the readings and course assignments. Organization of the class for the Current Intelligence and Estimative Intelligence exercises.

Textbook readings:

> Lowenthal, "Introduction -- What is Intelligence?" and "The Development of the U.S. Intelligence Community," Chapters 1-2 in *Intelligence: From Secrets to Policy* (1999), pp. 1-9, 10-23.

Topic 1: Intelligence as a Discipline

> Discussion of the basic notions of intelligence in theory and practice. The elements of intelligence. The intelligence cycle. Collection disciplines: HUMINT, Imagery Intelligence, MASINT, SIGINT, ELINT, OSINT, etc. National vs. military intelligence. Associated functions: internal security, counterintelligence, covert political action, paramilitary operations. **Topic Readings:** Loch K. Johnson, "Making the Intelligence 'Cycle' Work," *International Journal of Intelligence and CounterIntelligence* Vol. 1 No. 4 (1986), pp. 1-24; Bruce D. Berkowitz and Allan E. Goodman, "Strategic Intelligence Today," Chapter One in *Strategic Intelligence for American National Security* (Princeton, N.J.: Princeton University Press, 1989), pp. 3-29.

> **Quiz One "Foundation Stone" topic**: Elements of the U.S. Intelligence Community

WEEK TWO: January 18, 2006

General readings:

Lowenthal, "The U.S. Intelligence Community," and "The Intelligence Process -- A Macro Look at Who Does What for Whom," Chapters 3-4 in *Intelligence: From Secrets to Policy* (2006), pp. 30-53, 54-62; Heuer, "Thinking About Thinking and "Perception: Why Can't We See What Is There to Be Seen?", Chapters 1-2, *Psychology of Intelligence Analysis* (1999); Odom, "Why Intelligence Reform?" Chapter 1, *Fixing Intelligence* (2003), pp. 1-7.

Topic 2: Current Intelligence

Watch centers, briefings, current intelligence products. The "CNN Factor." Computer data bases and networks replace paper products. Users become their own analysts. Problems with politicization, resource allocation, and analytical expertise. **Topic Readings:** E. Luther Johnson, "Current Intelligence," Chapter 8 in Gerald W. Hopple and Bruce W. Watson (Eds.), *The Military Intelligence Community* (Boulder, Colo.: Westview Press, 1986), pp. 117-127; Michael Donley, Cornelius O'Leary, and John Montgomery, "A National Nerve Center: Inside the White House Situation Room," *Studies in Intelligence* No. 1 (1997), pp. 7-14; Emmet Paige, Jr., "The Rapid Expansion of Intelink," *Defense Issues* Vol. 11 No. 66 (1996); Richard Kovar, "An Interview with Richard Lehman, Mr. Current Intelligence," *Studies in Intelligence (Unclassified Edition)* No. 9 (Summer 2000), pp. 51-63, Katherine McIntire Peters, "Intelligence Lost," *The Workforce* November 1996.

Quiz Two "Foundation Stone" topic: Directors of Central Intelligence

Discussion of Competitive Estimates and NID (Current Intelligence) exercises.

Establishing teams/team chiefs and branches/branch chiefs, explaining purposes and parameters of the exercise, and standards for evaluation.

WEEK THREE: January 25, 2006

General readings:

Lowenthal, "The Intelligence Process -- Collection and the Collections Disciplines," Chapter 5 in Intelligence: From Secrets to Policy (2006), pp. 68-108; Heuer, "Memory: How Can WE Remember What We Know?" and "Strategies for Analytical Judgement: Transcending the Limits of Incomplete Information," Chapters 3 and 4, *Psychology of Intelligence Analysis* (1999); Odom, "Essential Dogma and Useful Buzzwords" Chapter 2, *Fixing Intelligence* (2003), pp. 8-52.

Topic 3: Open Source Analysis (OSINT)

Open sources. Non-intelligence inputs to intelligence, including diplomatic and military information. FBIS and the use of content and propaganda analysis. Open sources in evaluating closed societies and organized crime. **Topic Readings:** Graham Turbiville Jr.; LtCol Karl E. Prinslow, US Army; and LtCol Robert E. Waller, US Army, Ret., "Assessing Emerging Threats Through Open Sources," *Military Review*, September/ October 1999, pp. 70-76; Richard S. Friedman, "Review Essay: Open Source Intelligence," *Parameters*, Summer 1998, pp. 129-65; William Arkin, National Security Research on the Internet (SAIS, 2000); DCID 2-12 Community Open Source Projects Office 01 March 1994.

Quiz Three "Foundation Stone" topic: Military Joint Intelligence Centers (JICs)

NID (Current Intel) briefings: Round 1

WEEK FOUR: February 1, 2006

General readings:

Lowenthal, "The Intelligence Process -- Analysis," Chapter 6 in *Intelligence: From Secrets to Policy* (2006), pp. 109-144; Heuer, "Do You Really Need More Information?" and "Keeping an Open Mind," Chapters 5-6, *Psychology of Intelligence Analysis* (1999); Odom, "Making Dollars Yield Useful Intelligence," Chapter 3, *Fixing Intelligence* (2003), pp. 53-88.

Topic 4: Overhead Collection

Discussion of orbital mechanics and the limitations of satellites as collection platforms. Aircraft, balloons, RPVs. Ground stations and the problems with MOUs. Interaction with other forms of collection. **Topic readings:** Jeffrey T. Richelson, "High Flyin' Spies," *Bulletin of the Atomic Scientists* Vol. 52, No. 5 (September/October 1996); Lt Col A. Andronov and Sr Lt R. Shevrov, "American Overhead Visual Reconnaissance Systems," *Zarubezhnoye voyennoye obozreniye* [Foreign Military Review] No. 3 (1995), pp. 37-42; Lieutenant Commander J. Todd Black, U.S. Navy, "Commercial Satellites: Future Threats or Allies?" *Naval War College Review* Vol. 70 No. 1 (Winter 1999).

Quiz Four "Foundation Stone" topic: Intel Oversight bodies

NID (Current Intel) briefings: Round 2

WEEK FIVE: February 8, 2006

General readings:

> Lowenthal, "The Intelligence Process -- Counterintelligence," Chapter 7 in *Intelligence: From Secrets to Policy* (2006), pp. 145-156; Heuer, "Structuing Analytical Problems," and "Analysis of Competing Hypotheses," Chapters 7 and 8, *Psychology of Intelligence Analysis* (1999); Odom, "The World of Military Intelligence," Chapter 4, *Fixing Intelligence* (2003), pp. 89-114.

Topic 5: Imagery Intelligence (IMINT)

> Imagery Analysis, including photography, infrared imaging, and imaging radars. More discussion of collection platforms, including aircraft, RPVs, and satellites. Reconnaissance vs. surveillance. Techniques of imagery analysis, especially the "five S's". **Topic readings:** Charles Lane, "The Satellite Revolution: Photos of gulags, or John Travolta's yard," *New Republic* August 12, 1996; Dino Brugioni, "The Art and Science of Photoreconnaissance," *Scientific American*, Vol. 274 No. 3 (March 1996), pp. 78-85; Ray S. Cline "A CIA Reminiscence," *Washington Quarterly* Vol. 5 No. 4 (Autumn 1982), pp. 88-92; David Fulghum, "New Radars Peel Veil From Hidden Targets," *Aviation Week and Space Technology*, January 18, 1999; Jeffrey T. Richelson, "U.S. Satellite Imagery, 1960-1999," National Security Archive Electronic Briefing Book No. 13.

Quiz Five "Foundation Stone" topic: SSCI Chairs

NID (Current Intel) briefings: Round 3

Discussion of Imagery Intelligence exercise

WEEK SIX: February 15, 2006

General readings:

> Lowenthal, "The Intelligence Process -- Covert Action," Chapter 8 in *Intelligence: From Secrets to Policy* (2006), pp. 157-173; Heuer, "What are Cognitive Biases?" and "Biases in Evaluation of Evidence," Chapters 9 and 10, *Psychology of Intelligence Analysis* (1999); Odom, "Listening to Learn: Signals Intelligence," Chapter 5, *Fixing Intelligence* (2003), pp. 115-129.

Topic 6: Research and Estimative Intelligence

> Understanding the intelligence research and analysis process. Types of intelligence analysis, including warning intelligence, current intelligence, basic intelligence and estimates. Requirements for analysis. Managing the process to eliminate bias and politicization. Military intelligence production and presentation techniques. Uses of intelligence in the private sector, including risk analysis, competitor analysis and estimates for planning. Methodologies in business analysis. Threat analysis for business. Industrial espionage,

'grey' intelligence and industrial security. **Topic Readings:** Harold Ford, *Estimative Intelligence* (AFIO No. 10), 1993; Mark T. Clark, "Restore Competitive Intelligence," *Strategic Review*, Spring 1997, pp. 74-77; John Prados, "Central Intelligence and the Arms Race," "Intelligence Alarum," *The Soviet Estimate* (1982), pp. 245-268, 291-299; Fritz W. Ermarth, "Seeing Russia Plain: The Russian Crisis and American Intelligence," *The National Interest* (Spring 1999), pp. 5-14.

Quiz Six "Foundation Stone" topic: HPSCI Chairs

Imagery Intelligence Exercise products due.

WEEK SEVEN: February 22, 2006

General readings:

Lowenthal, "The Intelligence Process -- The Role of the Policy Maker," Chapter 9 in *Intelligence: From Secrets to Policy* (2006), pp. 174-190; Heuer, "Biases in Perception of Cause and Effect," Chapter 11, *Psychology of Intelligence Analysis* (1999); Odom, "Looking to See: Imagery Intelligence" Chapter 6, *Fixing Intelligence* (2003), pp. 130-142.

Topic 7: Signals Intelligence (SIGINT)

The two sub-disciplines of Signals Intelligence: Communications Intelligence (COMINT), and Electronics Intelligence (ELINT). SIGINT collection platforms and analytic techniques. The debate over deep encryption. **Topic readings:** (required) David L. Christianson, "Signals Intelligence," in Hopple and Watson, *The Military Intelligence Community* (Boulder, CO: Westview Press, 1987), pp. 39-55; Curtis Peebles, "U.S. ELINT," "Soviet ELINT," Chapters 11-12, *Guardians: Strategic Reconnaissance Satellites*, pp. 180-235; (recommended) Kenneth Flamm, *Deciphering the Cryptography Debate* (The Brookings Institution, Washington D.C., Brookings Policy Brief No. 21, July 1997); Tsgt. Pat McKenna, "Hacker Trackers: OSI Computer Cops Fight Crime On-Line," *Airman*, Vol. 40 No. 4 (April 1996), pp. 24-29; Summary of the Second International Cryptography Experiment (ICE) Workshop, SHAPE Technical Centre, The Hague, The Netherlands, September 18-19, 1995; Duncan Campbell, *Interception Capabilities 2000* (European Parliament Directorate General for Research, Directorate A, The STOA Programme, April 1999).

Quiz Seven "Foundation Stone" topic: The major world intelligence services.

WEEK EIGHT: March 1, 2006

General readings:

Lowenthal, "The Intelligence Process -- Oversight and Accountability," and "The Legacy of the Cold War," Chapters 10-11 in *Intelligence: From Secrets to Policy* (2006), pp. 191-219, 220-321; Heuer, "Biases in Estimating Probabilities," Chapter 12, *Psychology of Intelligence Analysis* (1999); Odom, "Spying to Know: Human Intelligence," Chapter 7, *Fixing Intelligence* (2003), pp. 142-166.

Topic 8: Measurement and Signature Intelligence (MASINT)

Mid-1980s creation of a new intelligence discipline incorporating all technical intelligence except Signals Intelligence and Imagery Intelligence. 1992 establishment of DIA's central MASINT office to coordinate military service operation of key MASINT collection systems and research initiatives. Was creation of a new 'stovepipe' justified? **Topic readings:** Review Richelson, "Measurement and Signals Intelligence," Chapter 9, *The U.S. Intelligence Community* (Boulder, Colo.: Westview Press, 1999), pp. 214-240; "An Introduction to MASINT," National Military Intelligence Association, accessed via website, May 19, 2000.

Quiz Eight "Foundation Stone" topic: Renaming the Soviet secret police

WEEK NINE: March 8, 2006

General readings:

Lowenthal, "The New Intelligence Agenda," and "Ethical and Moral Issues in Intelligence," Chapters 12-13 in *Intelligence: From Secrets to Policy* (2006), pp. 232-254; 255-274; Heuer, "Hindsight Biases in Evaluation of Intelligence Reporting," Chapter 13, *Psychology of Intelligence Analysis* (1999); Odom, "Spying on Spies: Counterintelligence," Chapter 8, *Fixing Intelligence* (2003), pp. 167-184.

Topic 9: Human Intelligence (HUMINT)

Clandestine collection activities. Recruiting and handling secret agents. Tradecraft in the field and its legal status. Case officers, agents, covers, interrogation. Requirements for HUMINT collection. Deputy Directorate of Operations and Human Resources Committee. Evaluation of agent reporting. Penetrations and informers. **Topic readings**: George C. Constantinides "Tradecraft: Follies and Foibles," *International Journal of Intelligence and CounterIntelligence*, Vol. 1 No. 4, pp. 97-110; Roy Godson (ed.) *Intelligence Requirements for the 1980's: Clandestine Collection* (NY: National Strategy Information Center, 1982); Gerald Hopple and Bruce Watson, "Human Sources," *The Military Intelligence Community* (1986), pp. 55-70.

Quiz Nine "Foundation Stone" topic: Intelligence management bodies

Course examination due.

Discussion of Progress on Estimates Exercise

WEEK TEN: March 15, 2006

General readings:

Lowenthal, "Intelligence Reform," and "Foreign Intelligence Services," Chapter 14-15 in *Intelligence: From Secrets to Policy* (2006), pp. 274-289, 290-305; Heuer, "Improving Intelligence Analysis," Chapter 14, *Psychology of Intelligence Analysis* (1999); Odom, "Conclusion: What It All Means," Chapter 9, *Fixing Intelligence* (2003), pp. 185-194.

Topic 10: Producer-Consumer Relations

Discussion of problems in delivering intelligence to policymakers. Creating a consumer-producer dialogue. Marketing techniques in intelligence. P-C relations in the military and private sectors. The intelligence cycle. **Topic readings:** Art Hulnick, "Producer-Consumer Relations: A New Way of Looking at an Old Problem," in Stephen Cimbala (Ed.), *Intelligence and Intelligence Policy in a Democratic Society*, pp. 129-144; Johnson, "Pathologies of the Intelligence Cycle," Chapter 5 in *America's Secret* Power, pp. 76-99; Glenn Hastedt, "Controlling Intelligence: The Role of the DCI," *International Journal of Intelligence and CounterIntelligence*, Vol. 1 No. 4, pp. 25-40; Robert Jervis "What's Wrong with the Intelligence Process," *International Journal of Intelligence and CounterIntelligence*, Vol. 1 No. 1, pp. 28-41.

Quiz Ten "Foundation Stone" topic: Key intelligence-related legislation

NIE PRESENTATION: Wednesday March 22, 2006 at 6 p.m.

IMAGERY INTERPRETATION EXERCISE GUIDANCE

1. EXERCISE SUMMARY: Students are required to locate a suitable piece of imagery on the World Wide Web and download it to disk; mensurate the image, identify its major features, annotate it using a standard graphics package; and print out the annotated image. They are also required to produce a written summary of their findings using the notional standardized reporting format appearing at the end of this guidance, including any significant assessments or conclusions that can be based on this image. In order to avoid duplicate images and allow for hands-on guidance, each student must clear his or her image with the Senior Review Panel. On February 12, 2003, the students are to hand in a printout of their annotated images and a one-page summary of their production and analytical findings in the format provided, as well as a diskette including these two items as files. At any time they should feel free to consult the Senior Review Panel for advice and additional direction.

2. PURPOSE OF THE EXERCISE: The Imagery Interpretation Exercise is an important component of the course because it illustrates the key role overhead imagery plays in the formulation of U.S. national security policy. Students must understand the technology and limits of the collection platforms and sensors, the methodologies used by U.S. government analysts to interpret the collected data, and the means used to disseminate the resulting product to policy-makers, if they are to appreciate imagery's contribution to the formulation of U.S. national policy. Most of this material is covered in two class lectures (Topic Six: Overhead Collection, and Topic Seven: Imagery Analysis) and their assigned readings, but the Imagery Analysis exercise gives the students the opportunity to integrate this information through a hands-on application of the relevant techniques.

The exercise is designed to simulate a U.S. government software application named Electric Light Table 2000 (ELT 2000). ELT 2000 is a software package that enables the user to manipulate and annotate digitalized imagery on a computer display. (Analog imagery -- conventional photography -- is now pretty much a thing of the past.) ELT 2000 uses standard Microsoft-based tool palettes and procedures for manipulating, enhancing, and annotating the imagery display. Thus it is possible to teach students basic Imagery Analysis, provided that they have access to digitalized imagery and a Microsoft-based or standardized graphics program. The World Wide Web gives students access to the imagery; Windows 95/98 comes bundled with two marginally acceptable graphics package -- MS Paint and MS Photoeditor.

3. PREPARING FOR THE EXERCISE: The Imagery Interpretation Exercise follows two class lectures dealing with imagery collection and analysis, as well as a presentation reviewing application of these subjects to a real-work assessment problem. The first preparatory lecture, "Overhead Collection," covered orbital mechanics and the limitations of satellites as collection platforms; aircraft, balloons, RPVs, and other airborne platforms; remote sensors, including photography, infrared imaging, and imaging radars; and interaction with other forms of

collection.   The second preparatory lecture, "Imagery Analysis," begins with a discussion of the key collection concepts of reconnaissance and surveillance, followed by basic techniques of imagery analysis, especially swath/resolution, and the "Five S's" -- size, shape, shadow, shade and surrounding objects.   The practicum, "A Million Men Marching?" walks through the methods the Boston University Center for Remote Sensing used to resolve a dispute between the National Park Service and the Nation of Islam over the attendance figure for the latter's 1995 rally.

4. SELECTING THE IMAGE: Each student is required to identify and download a piece of imagery suitable for demonstrating his or her understanding of these analytical techniques. To keep duplication of imagery to a minimum, the students are required to clear the images they intend to interpret with the Current Intelligence Exercise Branch Chiefs.   Branch Chiefs will refuse permission only if another student in the branch has already selected the same image. If they believe the image is not suitable for analysis, they should direct the student to the Senior Review Panel. The Branch Chiefs will keep track of which images their Branch Analysts will be interpreting and report to me as soon as they have heard from the entire branch.   Some of the numerous sites containing imagery include:

- Federation of American Scientists, imagery collection on the Intelligence Report Project page, www.fas.org/irp

- The CORONA Imagery Library at the National Reconnaissance Office, www.nro.gov

- The EROS Data Center at the U.S. Geological Survey, which includes an archive of declassified satellite intelligence imagery, http://edc.usgs.gov/Webglis/glisbin/search.pl?DISP or http://edc.usgs.gov/

- GlobeXplorer Inc., a private company vending overhead imagery, www.globexplorer.com

- The NASA Langley Research Center, a major center for testing and developing space imaging systems, www.larc.nasa.gov

- The National Imagery and Mapping Agency (NIMA), http://www.nima.mil/

- Space Imaging Corporation, a private firm vending space imagery that orbited its first satellite in 1997, www.spaceimage.com

- Department of Geography, University of Nottingham, U.K. at www.geog.nottingham.ac.uk/remote/faq-sats.html, which has a superb FAQ (Frequently Asked Questions) guide to remote sensing, with embedded links to sites worldwide containing overhead imagery. (Site appears to be down)

- UC Berkeley Library Remote Sensing Resources,

5. ANALYZING AND ANNOTATING THE IMAGE

Students in this class are responsible only for producing an annotated image; for reporting on key facts about the image, indicating swath and resolution; and for identifying key features using all five of the "Five S's." Some of you may wish to experiment with other techniques as well. In past iterations of the Imagery Interpretation Exercise, some students have gone further, discovering and applying the following techniques:

- Creating a Region of Interest (focused cutout of a portion of the complete image) and turning it into a sub-image
- Using maps and geographic coordinates to define an image, confirm identification of key features and objects, and evaluate its function.
- Using schematics of aircraft and other hardware to analyze objects within the image through Observable Functional Characteristics.
- Using an object of defined length as a metric (in one especially clever instance, using a football field).
- Using the amount of shadow to determine the time of day the image was taken.

Superior efforts will apply these and other related techniques. The Federation of American Scientists website has two short on-line courses, "IMINT 101" and "IMINT 102" that may help you review concepts and terminology. http://www.fas.org/irp/imint/imint_101.htm

6. REPORTING FORMAT: I have created a notional reporting format for this exercise, given on the next page. Please note that it is not based on any actual format used by the U.S. government. However, it provides much of the same information as that in U.S. government reporting formats, and does so in a standardized manner, making for easy evaluation and retrieval. The project is due both in print-out format and on disk on February 15, 2006.

[Reporting format shell on next page]

Name of Analyst
PSCI 621: Strategic Intelligence
Imagery Interpretation Exercise
Date of Exercise Completion

Short description of image:
Site where image obtained:
Image swathe:
Image resolution:
Image coordinates or lat-long [if available, otherwise, describe location]:
Type of report [BDA, SUPIR, etc.]:

Short description of mensuration procedure:

Use of the Five S's to analyze the image (short description of each) --

       Size:
       Shape:
       Shadow:
       Shade:
       Surrounding objects:

Summary of major features in the image (should match annotations on the image printout):

Significant findings or assessments based on this image (should be at least a paragraph in length but not more than three paragraphs long):

CURRENT INTELLIGENCE EXERCISE GUIDANCE
AY 2006 Issue: Populist Authoritarianism in South America

1. EXERCISE SUMMARY: participants will simulate the work of a current intelligence center or "shop" under non-crisis conditions. During the first class session they will be assigned to one of two or more branches established to deal with different aspects of the issue being monitored, and will begin tracking the issue using available open sources. The exercise itself will run for three concurrent weeks, as noted in the Course Summary above. Participants will prepare PowerPoint slides on a breaking issue, under the direction of their branch chief, and brief it before the full class. They will also prepare a short (six to 16 sentence) assessment of the issue. Each week after class the branch chiefs and members of the Senior Review Panel will edit and consolidate the assessments into an annex of the *National Intelligence Daily* (NID) using real NID format, for the instructor's review, revisions, and promulgation. At any time participants should feel free to consult the Senior Review Panel for advice and additional direction; branch chiefs will work under their general supervision.

2. PURPOSE OF THE EXERCISE: The purpose of the Current Intelligence exercise is to acquaint participants with the workings of an analytical division within a current intelligence center. As Current Intelligence analysts they would be required to possess the same skills called for in this exercise – construction of PowerPoint slides, briefing abilities, and contribution of short articles to a Current Intelligence publication. Participants will understand how the US intelligence community tracks and assesses breaking issues as a result of their participation in this exercise.

3. PREPARING FOR THE EXERCISE: Participants will receive lectures on Current Intelligence and on Open Source analysis prior to participating in this exercise. In addition, they will be given a number of publicly available documents following the same format used in Current Intelligence publications. They should begin tracking open source materials related to their issue from the beginning of course. Going through the exercise on three successive weeks will give participants the opportunity to develop their skills and understanding of Current Intelligence procedures.   Additional information on conducting the Current Intelligence Exercise will be provided in class.

NATIONAL INTELLIGENCE ESTIMATE EXERCISE GUIDANCE

AY 2006 Topic: Implications of Populist Authoritarianism in South America

1. EXERCISE SUMMARY: Participants in the National Intelligence Estimate exercise will produce a Team-written and Team-presented analysis of the topic under review for this academic year. On the first day of class they will organize the NIE team or teams, and research and develop the project during the entire quarter. By the third week of class the Team Chief or Chiefs should have developed terms of reference that translate the general topic into specific issues for investigation and analysis by the team or teams. If there are multiple teams, the members should regard themselves as conducting competitive analysis on the topic. On the last week of class the team or teams will make a trial presentation before the Senior Review Panel. The formal NIE presentation is scheduled for the day of the final examination, Tuesday March 16th. It will be a public event, and generally is attended by a number of faculty and alumni. The Team Chief or Chiefs should ensure they have enough copies of their final report for each faculty member present.

2. PURPOSE OF THE EXERCISE: Participants will develop an appreciation for the uncertainties and difficulties involved in predictive intelligence analysis. In particular, they will experience many of the leadership and management challenges inherent in the process of coordination and developing consensus. Beyond this, the participants will participate in a group project requiring in-depth research and significant editing and critique of their peers' work. At the end of the exercise, participants will have the opportunity to evaluate each other's performance, as well as the support given by the Senior Review Panel. Dr. Green and the Senior Review Panel will be providing specific support and instruction for this exercise throughout the quarter.

SOME BASIC RULES FOR THIS CLASS

o   Do not be shy about seeing me, either in or out of my office hours. If I am not in, please make an appointment with the departmental secretary, or set up an appointment with me directly via E-mail. I am happy to work with you, not only on your assignments for this class, but to enrich your education in whatever ways I can. I like to meet with each of my students at least once in the first few weeks of class, and again before the final. If I do not know who you are and have no strong opinions of you by the middle of the course, you are not being assertive enough!

o   E-mail is increasingly becoming a vital means of communications in government, business, and the professional world. It is also essential to participation in this class.   CSUSB students are entitled to free E-mail accounts. Every student in this class should be in E-mail communication with me by the end of the first week of classes, and be on the class LISTSERVer. If you are not, contact the Political Science/National Security Studies office as soon as possible.

Electronic searches are now the basic form of obtaining cutting-edge information on this and many other contemporary topics in government, economics, and international affairs. To research material for this class properly, you will need to know about the World Wide Web, NEXIS-LEXIS, catalog searches, gopher sites, LISTSERVers, and many other research tools you may not currently be familiar with. At the same time, do not neglect print sources. It will be decades before the World Wide Web has the depth of resources available even in a small library.

o   I encourage you to work closely with the other students in the class in studying for exams and quizzes, researching and proofing papers, and so forth. I will do what I can to facilitate group study in this class, including attending such sessions myself, if they fit my schedule. You should put together a mailing list of the students in this class and share materials that may be of common interest to your classmates.

o   Cheating and plagiarism are disturbing and demoralizing phenomena that have the potential of destroying the trust and integrity at the basis of academic life. If I detect such behavior, I will respond with a failing grade in the class and a recommendation for disciplinary action to the Department Chairman. If you are facing the temptation to cheat or plagiarize, remember that you will be committing a treacherous betrayal of your classmates, instructor, and whoever is financing your education. In this class, plagiarism includes submitting as your own work a paper that you purchase, borrow, "inherit," commission or otherwise obtain by any means other than researching and writing it yourself. In addition, it applies to the inclusion of lengthy unattributed material from other sources in a paper, as well as outside assistance on an examination. It also includes material you may have previously written for another class ("self-plagiarism"), or are handing in simultaneously for another class, unless you have prior written permission both from me and the other instructor. If you detect, or think you detect, plagiarism on the part of a classmate, you have a duty to take appropriate action to halt it.

o   By all means, keep a copy of the papers and other assignments you hand in for

this and all other classes. Even the best organized professors occasionally mislay papers, and a promptly produced photocopy can remove all doubt as to whether or not you actually completed an assignment.

      o   I regard regular attendance as essential for successfully completing this course. If you have a schedule conflict arise with some other event, let me know ahead of time with an E-mail message. If an event comes up without notice, give my office a call and leave a message with my secretary or on my voice mail. Even if I excuse your absence, of course, you are still responsible for that day's material.

      o   Writing letters of recommendations is part of my job, and I will write you the best honest evaluation that I can. If you ask me for a letter, please give me copies of all the assignments you have completed for me, as well as a resume and transcript. This will help me put in the personal details that could make a difference in your acceptance to graduate school, law school, or employment. Be sure to waive your right to see the letter, for I will give you a copy upon request regardless of circumstances. If I have to make any negative observations, I will tell you prior to writing the letter. Let me know in writing when it is due, since my practice is to save up recommendations and write them in batches.