



SFSA CASTEEL REPORTER

Steel Founders' Society of America

a monthly publication
serving SFSA steel casting industry Members

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November — 2005

Casteel Commentary Highlights:

The Casteel Commentary reflects on the volatile and uncertain costs of our inputs. Many use surcharges to adjust each order based on the current cost. It is probably time to look at the past two years, establish a new base cost to use in pricing and reestablish the surcharge based on the new market conditions.

Hexavalent Chromium

The Office of Management and Budget is reviewing the proposed tighter limits on hexavalent chromium. You may want to contact your congressperson to let them know you are concerned about this issue. Some additional information is available at <http://www.sfsa.org/sfsa/news>

Innovation

Short cycle heat treatment has been limited by our inability to make sure that all the castings have reached temperature. Our control thermocouple is in the combustion area and does not tell when the castings have reached temperature. Instrumented loads can be used but this has been too expensive to adopt as a routine practice. At the T&O conference, one of Frank Peter's students, Brian Harwood, proposed that monitoring the burner would allow us to know when the load was at temperature.

When the load is first placed in the furnace, the burners operate at their maximum setting. As we approach the set temperature the burner begins to cycle on and off. Soon after the burner begins to cycle the burner control begins to reduce the setting. As the load approaches the set temperature, the burner setting is

reduced even as the burner cycles on and off. When the load including the center of the larger castings reach the set point, the burner remains at a constant low setting cycling on and off. When the load no longer is asking for anymore than this minimum setting, it is at temperature. While this would need to be documented at your facility, and the low setting monitored to make sure that the furnace was not leaking or the burner malfunctioning, this is an elegant and technically sound way to establish that the load is at temperature.

Since the transformations do not wait until you reach the maximum temperature, they have occurred already when you reach temperature for carbon and low alloy materials. This would save about half the time and one third of the energy we use in heat treatment.

Specification Note

In order to make sure that a steel casting is sound and will perform in service, customers impose nondestructive examination requirements like radiography and magnetic particle inspection. These inspections are essential to ensure that castings, especially in critical applications can perform. Unfortunately for us, and our customers, current standards are meaningless as an engineering measure of performance.

SFSA has sponsored work to look at the repeatability of the current inspection techniques and they are poor. There is a subjectivity of the standards that is inescapable. Even if the standard could be applied repeatably, the standards are workmanship standards and make no attempt to predict performance.

It is important when a customer requires radiography or any inspection that the confirmation, terms and conditions are clear. The test method, areas to be inspected, inspection technique, inspector qualifications, and acceptance criteria should be clear. If a customer simply asks for X-ray without specifying the areas to be shot and the acceptance criteria, it may be difficult if there is a rejection or failure to establish that the foundry was not negligent.

Persons Available

A1213 has over 20 years operational and management experience; seeks a leadership position in the steel casting industry. BS and MS in Metallurgy. Successfully helped turn around a \$22 million foundry and machining company.

A1214 seeks a position as a supplier development manager with a large casting manufacturer or OEM. BS in Metallurgical Engineering, significant management and process experience in the steel casting industry.

A1215 seeks an engineering position with interest in the application of technology to improve process productivity and energy efficiency. BS in Chemical Engineering; will graduate with an MS in Industrial & Manufacturing Systems Engineering in May 2006.



Hands-on visual casting inspection variability exercise at the 2005 Member Workshop

59th Technical & Operating Conference

This year's T&O Conference was a great success: 190 people attended representing 50 SFSA member companies. 38 papers were presented on a wide variety of subject areas - 20 of the papers were given by members. The member workshop was also a great success, with 58 attendees.

Presentations were given on the use of porous plugs, a process by which molds can be printed, and a description of the methods and examination techniques used in investigating a casting defect was presented by Robin Griffin and John Griffin of the University of Alabama at Birmingham. Frank Peters of Iowa State University gave a hands-on session on variability in visual inspection of castings.

Market News

Demand for steel castings continues to push our ability to produce. Bookings and shipments based on the SFSA Trend Cards for carbon and low alloy castings remain at strong double-digit growth rates for more than a year and a half. Strong growth continues even over last year's strong increase. For high alloy castings after an explosive last year, shipments and bookings remain at those high levels. The AISI data shows some slowdown in shipments while the DOC Census numbers for iron and steel castings show a stable market at very high levels. Capital equipment orders remain high and orders continue to outstrip shipments. The hurricanes may cause a temporary slowdown in the last quarter of 2005 but will add to demand for the first half of 2006. Our forecast is for strong continued demand through 2006.

Casteel Commentary

Surcharges have been generally accepted as a way to pass through the volatile high prices of energy and materials. This allows the foundry to quote a new or existing casting without the risk that a sudden price spike in scrap, energy or alloys, will make the quoted price unreasonable. Since the level of surcharge varies with easily followed market indices, purchasers can understand the surcharges.

Surcharges are limited as a pricing mechanism. The split between base price increases and surcharges depend on when and how each facility organized its own response. Each plant undoubtedly has a different base for calculation, time for comparison, and method of calculation. These variations in a competitive market are normal but make comparison of bids more difficult for purchasers. As many materials have seen dramatic increases in price the surcharges may become not merely a cost recovery mechanism but a significant portion of the total price. This reduces the value of the surcharge mechanism and creates greater uncertainty in future pricing.

Strong worldwide demand for commodities like scrap, energy, and alloys, is likely to continue to support volatile and higher pricing. The liquidation of excess capital equipment after 9-11 has led to systemic shortages of these inputs. At some point, we need to consider readjusting the pricing structure to roll in the stable increase in cost while retaining the surcharge to handle the market variations in cost. This would allow for greater stability, easier comparison of bids, and less uncertainty in quotations.

It would seem reasonable as our industry looks ahead to a strong market demand for the coming year to try to identify the new cost benchmarks for these inputs, roll them into our ordinary pricing structure, and retain a surcharge mechanism to accommodate pricing volatility.

Raymond

STEEL FOUNDERS' SOCIETY OF AMERICA

MEETINGS CALENDAR

2005

December

7 Marketing Committee Meeting, Atchison, KS

March

9/10 North Central T&O Meeting and plant tour, Muskegon, MI

**STEEL FOUNDERS' SOCIETY OF AMERICA
BUSINESS REPORT**

SFSA Trend Cards 3 Mo Avg Aug Jul
(%-12 mos. Ago)

Carbon & Low Alloy

Shipments	21.6	33.5	13.5
Bookings	31.0	21.1	31.3

High Alloy

Shipments	7.5	-2.7	4.4
Bookings	2.8	8.8	9.6

**Department of Commerce
Census Data**

Iron & Steel Foundries (million \$)

Shipments	1,679	1,662	1,658
New Orders	1,656	1,559	1,682
Inventories	2,087	2,070	2,046

Nondefense Capital Goods (billion \$)

Shipments	66.7	66.4	64.4
New Orders	75.0	73.7	70.9
Inventories	112.0	112.1	111.2

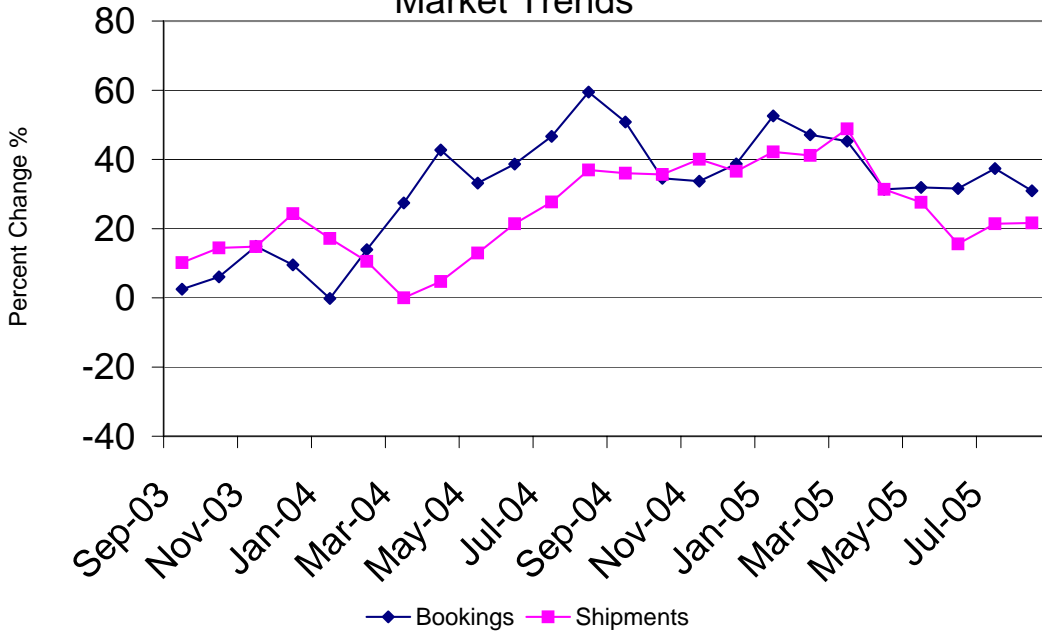
**Nondefense Capital Goods
less Aircraft (billion \$)**

Shipments	63.0	61.9	60.8
New Orders	64.8	64.1	61.6
Inventories	94.7	94.3	93.6
Inventory/Orders	1.46	1.47	1.52
Inventory/Shipments	1.50	1.52	1.54
Orders/Shipments	1.03	1.03	1.01

American Iron and Steel Institute

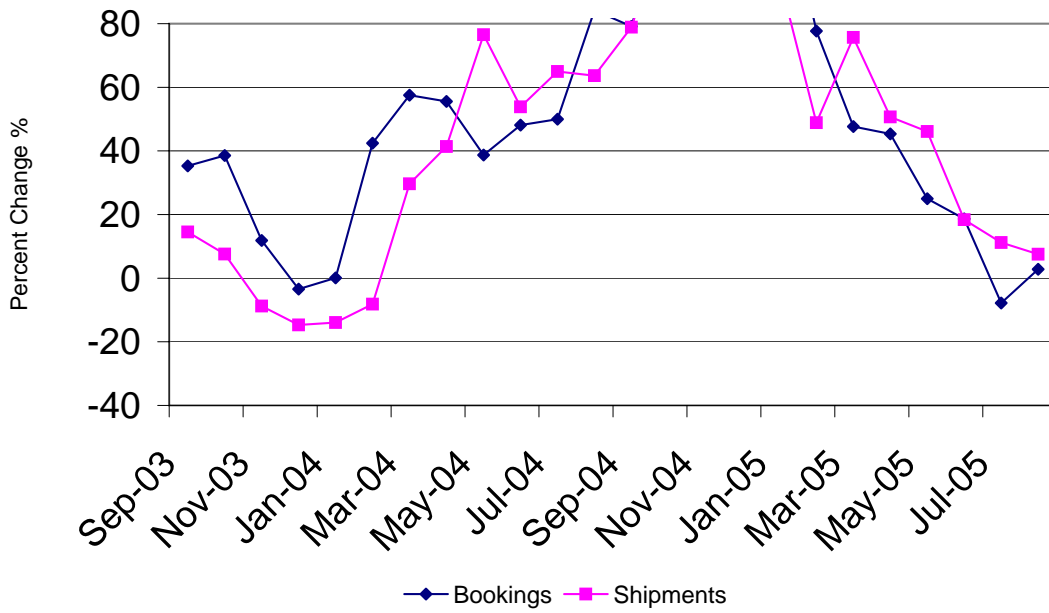
Raw Steel Shipments (million net tons)	8.3	8.9	7.8
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Carbon & Low Alloy Casting Market Trends



SFSA Postcards

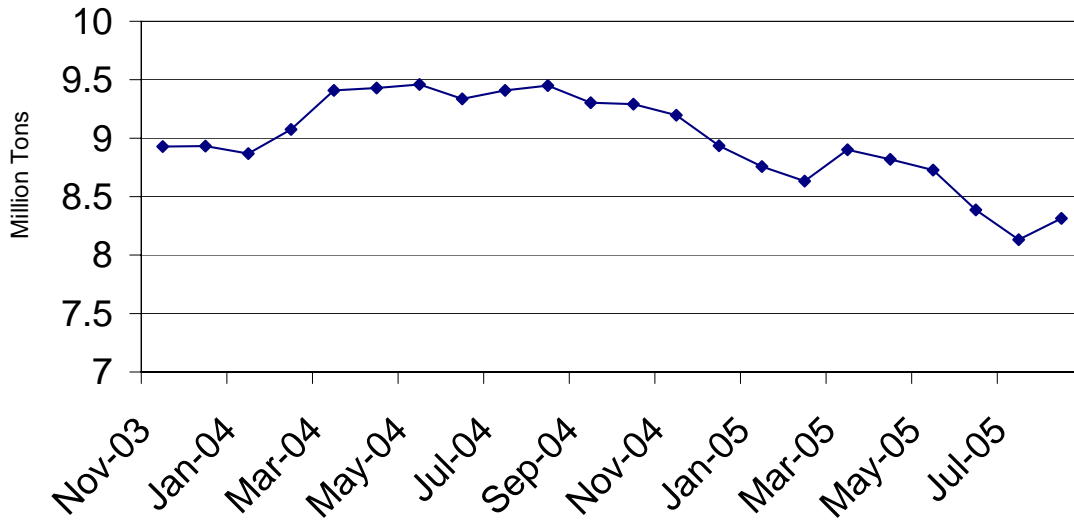
High Alloy Casting Market Trends



SFSA Postcards

Raw Steel Shipments

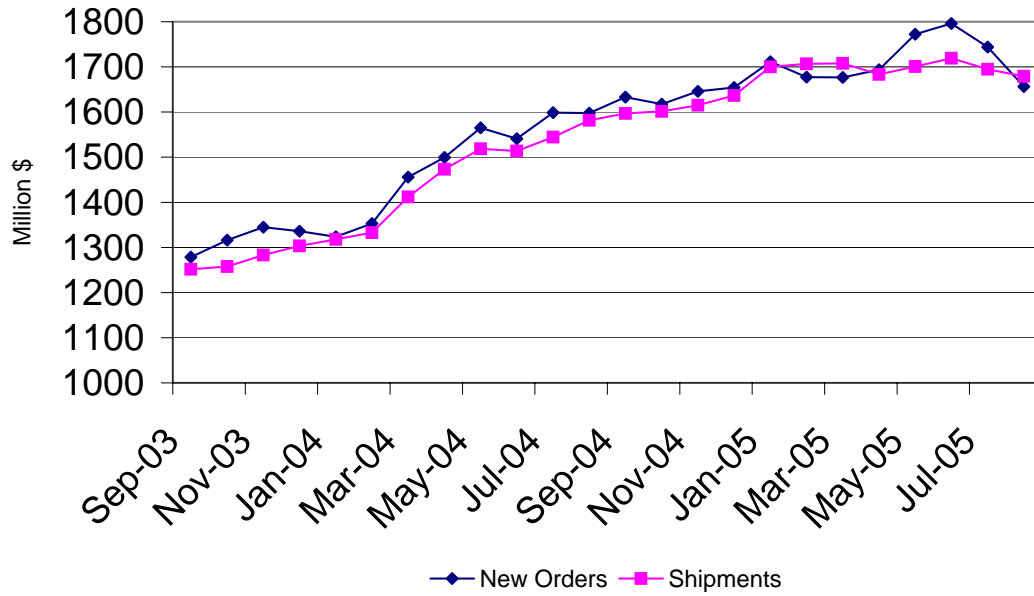
3 month average



AISI Data

Iron and Steel Castings

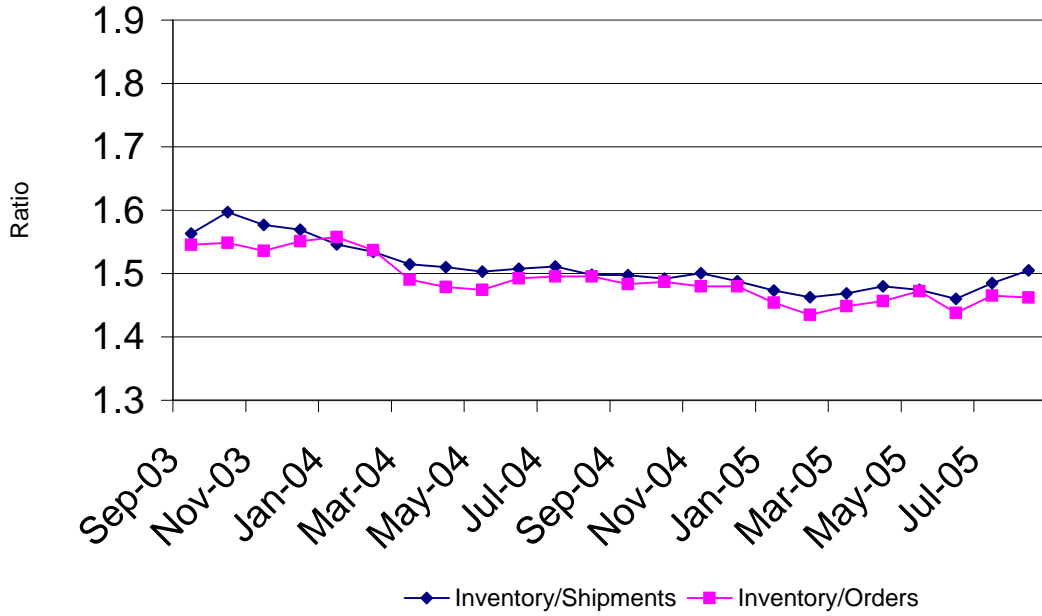
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SFSA

Nondefense Capital Goods less Aircraft

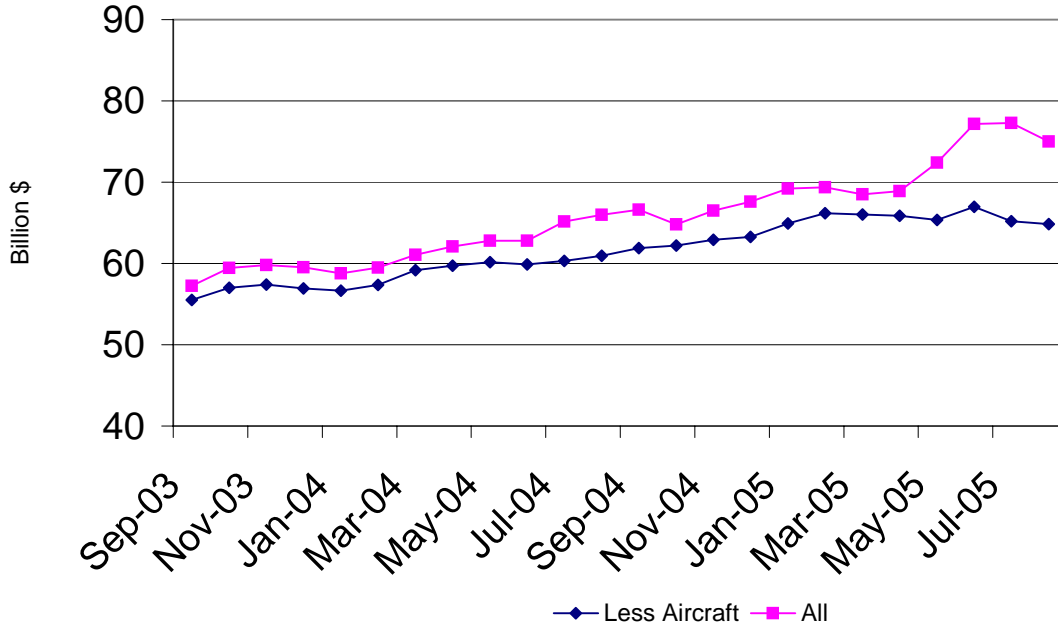
3 month average



Department of Commerce

Nondefense Capital Goods New Orders

3 month average



Department of Commerce

Subject: Upcoming Illinois Trade Events

Below is a list of upcoming int'l trade events, which our office is organizing or co-sponsoring/supporting. We hope that you will be able to join us for at least one of them! You can also access this list as well info on other upcoming int'l events & missions at <http://www.buyusa.gov/uppermidwest/events.html>

Best Regards,

*Debra H. Rogers
International Trade Specialist
U.S. Export Assistance Center – Chicago
US Dept of Commerce
T: 312-353-6988*

Thursday, October 20, at 12:00 p.m. EST: WebEx on "The Mexican Way of Doing Business"

Cultural consultant Lic Maria Garaitonandia will provide an overview of the Mexican Way of Doing Business, focusing on the importance of relationships and trust in Mexico and the differences in communications styles and the concept of time. This session is designed to help U.S. firms doing business in Mexico to understand and avoid the pitfalls and frustrations of initiating and maintaining ties with Mexican businesses. This WebEx session is available from anywhere in the U.S. via teleconference and internet. To register please go to:
https://www.buyusa.gov/mexico/en/sharing_more_than_a_border.html

October 26-29, 2005: Worldwide Food Expo – McCormick Place, Chicago

Held every two years, this show is the largest and fastest-growing food manufacturing event in the Western Hemisphere, attracting well over 30,000 Key Decision-Makers from today's thriving food industry. Attendees represent the full spectrum of food manufacturing professionals, from corporate executives to plant managers, chief engineers to brand managers, packaging directors to purchasing agents. Since this is a certified International Buyer Program (IBP) show, U.S. Commercial Service overseas offices are recruiting foreign buyer delegations from all over the world to attend this show. Our staff can help you meet members of those delegations and will be available for export counseling in the show's International Business Center. Contact: Shari Stout at (309) 671-7815 or shari.stout@mail.doc.gov

November 9, 2005: Secretary of Commerce Speaking on America's Competitive Advantage - Chicago

Luncheon and address hosted by the Chicago Council on Foreign Relations (CCFR). Carlos M. Gutierrez is the 35th Secretary of the U.S. Department of Commerce, the voice of business in government. The former chairman of the board and chief executive officer of Kellogg Company, Secretary Gutierrez oversees a diverse Cabinet agency with some 40,000 employees and a \$5.8 billion budget focused on promoting American business at home and abroad. He will address such questions as: "How can the government work with business to ensure that the U.S. remains the world's best place to do business?" and "How can we pursue free trade with other countries while ensuring that American companies can compete on equal terms with global competitors?" He will also address the power of free trade agreements and intellectual property rights enforcement. Noon - 1:45 p.m. at the Peninsula Chicago Hotel, Ballroom, 108 E. Superior St., Chicago. CCFR members: \$65; Non-members: \$85. Contact: Scott Viohl at 312-821-7536 or sviohl@ccfr.org.

November 16, 2005: Making Federal Export Assistance Programs Work for You - Rolling Meadows

Robin Mugford, Director of the U.S. Department of Commerce Export Assistance Center in Libertyville, IL, will cover ways the U.S. Department of Commerce Commercial Service and its partner federal agencies help businesses take advantage of global opportunities. In addition, Julie Ward, International Group Manager, Dickson Company, will present Dickson's export success story. This Addison, Illinois firm manufactures temperature, humidity and pressure monitoring and measuring instruments, and has successfully used U.S. Commercial Service programs to find distributors and expand into more than 20 new markets. 8:00 - 10:00 a.m. at the DePaul University Rolling Meadows Campus, 2550 W. Golf Rd, in the International Business Center. Fee: \$25. Reservations are encouraged due to limited space. For information & registration, call 847-437-9522 or go to www.internationalbusinesscenter.info.

December 7-8, 2005: Global Manufacturing Series - AUTOMED 2005 - Park Ridge

Second Annual Global Manufacturing Series sponsored by the International Trade Club of Chicago and the Tooling & Manufacturing Association. This program spotlights the latest opportunities in the automotive and medical equipment markets through a series of practical, timely case studies. Learn as Tier II suppliers share their "success stories" in the face of global competition, while DaimlerChrysler and Cardinal Health share their approaches to finding and qualifying vendors. Manufacturers serving other sectors will also benefit from the strategies being presented. There will be a total of eight case-study presentations delivered across the four ½ day modules, with panel discussions at the end of each day. TMA Conference Center, 1177 South Dee Road, Park Ridge, IL. ITCC & TMA Members - \$250; Non-members - \$350. For information and registration, please call 312/368-9197 or visit: www.automed2005.org.

December 16, 2005: Doing Business in Singapore - Chicago

Scott Pozil, Commercial Officer at the U.S. Commercial Service in Singapore will be visiting our Chicago office on Friday, December 16, 2005. We invite you to join us for a 9:30 a.m. in-office briefing on Doing Business in Singapore. Best prospect sectors for U.S. exports are many and include restaurant/hospitality equipment market, telecommunications, aerospace and dental equipment. For those interested, one-on-one appointments also be available thereafter. Fee: \$25. Location: 200 W. Adams, Suite 2440, Chicago. For further information or to register contact Bernadine Smith at 312-353-5096 or bernadine.smith@mail.doc.gov.

February 7-9, 2006: BIS Export Regulations Seminar - Chicago

Save the date

We make every effort to minimize unwanted communication from our worldwide offices. If you do not wish to receive similar announcements from the U.S. Commercial Service in the future, please reply to this message with "UNSUBSCRIBE" in the subject line of the email. A staff member will remove you from our active distribution list so that you do not receive additional messages from us. Please Note: We do not sell, barter, share, or distribute our client lists with parties outside the U.S. Federal Executive Branch of Government unless required to do so by law. You can review our privacy policy at <http://www.commerce.gov/privacystatement.html>