The International Titanium Association has announced its keynote speaker at TITANIUM 2009 will be Simon Pickup, Director of Business Operations and Analysis for Airbus, who will present his company’s Global Market Forecast for aircraft demand over the next 20 years. The industry’s 25th annual conference and exhibition is scheduled for September 13 – 16 in Kona, Hawaii.

This is the only symposium dedicated to the titanium industry and the sole time and place key executives from the world’s leading titanium producers gather to present their insights on World Supply and Demand Trends. According to Michael Metz, Conference Chair, “The inside knowledge shared at TITANIUM 2009 should help companies involved with the metal make long-term business and investment decisions during this time of global economic slowdown.”

The Airbus Global Market Forecast (GMF) gives a detailed analysis of world air transport developments, covering nearly 300 passenger and freight traffic flows, as well as a year-by-year fleet evolution of the world’s aircraft operators, through fleet analysis of nearly 700 passenger airlines and 177 freighter operators.

ITA Opens A ‘Contact Window’ In China

The International Titanium Association (ITA) has, literally and symbolically, opened a new “window” for its members who are eager to explore business opportunities in Asia, especially the vibrant industrial markets of China.

Broomfield, CO-based ITA has established a strategic alliance with Elysia Teh, the founder of JJE Consultancy (Xiamen) Co. Ltd. (Web site: www.jje-cns.com), a four-person consulting group based in Xiamen, China. Teh, who speaks six languages (English, Chinese, Bahasa Malaysia, Cantonese, Hakka, and Hokkian) will serve as a translator and facilitator—

ITA To Launch Online Version Of ‘Fundamentals Of Titanium’ Workshop

The International Titanium Association (ITA), Broomfield, CO, is launching an online version of its successful “Fundamentals of Titanium” workshop—a multi-media, 16-week course that can be accessed via the Internet in a variety of languages.

The registration price is $249 for ITA members and $325 for non-members. The online workshop will be an electronic tutorial featuring Stanley Seagle, a titanium industry veteran who has delivered the program to audiences around the world for the last 12 years. The online workshop will make Seagle’s vast experience in...
Titanium Industries Announces Craig Simpson Director-European Sales

Titanium Industries, Inc. is pleased to announce that Craig Simpson will begin working in a newly created position within the company as Director European Sales effective May 5. In this position Craig will be responsible for European sales through the three facilities located in Europe at Birmingham and Southampton UK and Bergen, Norway. Craig’s vast experience in metals and distribution make him well qualified for this position.

Craig’s most recent position was UK General Manager for Samuel Son & Company (UK) Ltd. Prior to that, he held sales positions with Titanium Industries UK, Apollo Metals Ltd. and Thyssen Garfield Ltd.

Craig is a graduate of King Edward VI in Litchfield, UK and a Fellow of the Institute of Sales Marketing Management.

Titanium Industries is a global manufacturing distributor of titanium, nickel based alloys and a variety of other metals with value-added services in saw, laser and water-jet cutting, shearing, boring, trepanning, welding instruction and vendor managed inventory. GMT Titanium in Europe is a fully owned subsidiary and non-titanium products are marketed through High Performance Metals. With five distribution facilities and two sales offices in the USA along with six international locations, Titanium Industries is capable of providing global supply requirements. For more information visit: www.titanium.com, www.gmttitanium.com, www.highperformancemetal.com.
Continued on Page 5
RathGibson announces the opening of its Buenos Aires office to serve customers in Central and South America

Lincolnshire, IL – With its continual pledge to meet the needs of its local customers, RathGibson, a leading manufacturer of welded, welded and drawn, and seamless stainless steel, nickel, and titanium tubing, has opened an office in Buenos Aires, Argentina. Led by Cristian Rohde, the Buenos Aires office will serve both Central and South America.

As Director – Business Development for Central and South America, Mr. Rohde will concentrate on providing high-quality products and services to RathGibson’s customers. Mr. Rohde’s fluency in English, German, Portuguese, and Spanish will enhance the RathGibson customer experience in the region. Mr. Rohde will report directly to Andrew Yeghnazar, Vice President - International Sales and Business Development.

“An office in Buenos Aires opens many avenues of communication and opportunities for RathGibson and our customers in that region. Based upon his extensive background, Cristian is an ideal addition to the RathGibson family,” said Mr. Yeghnazar.

This office opening represents RathGibson’s first venture into Central and South America. The South American steel industry has undergone a profound transformation during the last twenty years. Businesses are evolving from being segmented and state-controlled into efficient, well-organized companies with significant private and independent ownership.

The Buenos Aires office joins RathGibson’s other international offices in Australia, Austria, Bahrain, China, India, Singapore and South Korea in providing local real-time support to its global customers.

RathGibson is a worldwide manufacturer of highly engineered stainless steel, nickel, and titanium tubing for diverse industries such as chemical, petrochemical, power generation, energy – oil and gas, food, beverage, pharmaceutical, biopharmaceutical, medical, biotechnology, and general commercial.

RathGibson’s corporate headquarters are located close to Chicago in Lincolnshire, Illinois. Manufacturing locations include: Janesville, Wisconsin, North Branch, New Jersey, Clarksville, Arkansas (Greenville Tube), and Marrero, Louisiana (Mid-South Control Line). In addition to the sales offices in Janesville, North Branch, and Marrero, RathGibson has also strategically placed sales offices in Houston, Texas, USA; Shanghai, China; Manama, Bahrain; Knoxfield, Australia; Seoul, South Korea; Mumbai, India; Singapore; Vienna, Austria; and Buenos Aires, Argentina.


Avon Metals Ltd receives the Queen’s Award

Avon Metals Ltd receives the Queen’s Award for Sustainable Development for its progressive governance and innovative measures, which it has put in place to promote sustainability, and in doing so, promote best practice within its sector.

Refusing to rely on a “we recycle” mantra to demonstrate commitment to sustainable, Avon have instead developed a comprehensive continuous improvement strategy to ensure and deliver ambitious environmental sustainability governance.

Focussing upon a range of broad and ambitious sustainability indicators, Avon’s 20:20 initiative presents a truly rounded, and increasingly effective, approach top sustainable development which sets a laudable benchmark for others within their sector.

Operating in the challenging context of metals recycling, Avon’s innovation commitment to achieving “total sustainability” and sharing of its knowledge amongst like-minded companies, places them at the forefront of sustainability within their marketplace.

For more information visit their website at: www.avonmetals.com.


What’s New in Titanium?

Airbus/EADS sign a Titanium agreement Continued From Page 3

and structural parts of the fuselage and wings.

“Airbus is preparing for long-term growth. This agreement is an important pillar of our internationalisation and especially our strategic relationship with Russian industry”, says Tom Enders, President and CEO of Airbus.

Sergey Chemezov, General Director of ‘Russian technologies’ adds, “The signed agreement demonstrates that Russia can offer high technology products to the world market and is one of the leading players in such an important sector as the aerospace industry.”

VSMPO-AVISMA Corporation, integrated structure of ‘Russian Technologies’, is the world’s largest Titanium producer. At present the Company exports 70% of its products, 30% are sold in the domestic market. Major customers of VSMPO-AVISMA are the world’s leading aircraft-building companies. The Company is fully vertically integrated and employs over 20 000 people.

The Russian Technologies State Corporation is a legal body established by the Russian Federation in the form of state corporation business entity. The mission of the Russian Technologies State Corporation is assistance to Russian design and manufacturing organizations in developing, producing and exporting high technology industrial products in the domestic and foreign markets, and attracting investments to enterprises in various sectors of industry. The Russian Technologies State Corporation is the main shareholder of VSMPO-Avisma Corporation, owning 66 per cent of its shares. State shareholding of the unique titan manufacturer allows the state to provide national industry and defence complex in particular with this vital product as well as control titan export.

Airbus is a leading aircraft manufacturer with the most modern and comprehensive family of airliners on the market, ranging in capacity from 100 to more than 500 seats. Over 9,200 Airbus aircraft have been sold to more than 400 customers and operators worldwide and more than 5,600 of these have been delivered since the company first entered the market in the early seventies. Airbus is an EADS company.

EADS is a global leader in aerospace, defence and related services. In 2008, EADS generated revenues of €43.3 billion and employed a workforce of about 118,000. The Group includes Airbus as the leading manufacturer of commercial aircraft, with Airbus Military covering tanker, transport and mission aircraft, Eurocopter as the world’s largest helicopter supplier and EADS Astrium, the European leader in space programmes from Ariane to Galileo. Its Defence & Security Division is a provider of comprehensive systems solutions and makes EADS the major partner in the Eurofighter consortium as well as a stakeholder in the missile systems provider MBDA.

Contacts for the media:
‘Russian Technologies’ state corporation press department
+7 495 637 99 15

Airbus: Maria Shlyakhtova: +7 90 32 76 01 22
Stephanie Henrion: +33 5 61 18 58 27

Low Pressure Vacuum Carburizing Patent Received

Souderton, Pa. --William R. Jones, chief executive officer, announces the receipt of US Patent No. 7,514,035 B2 issued April 7, 2009, for a “Versatile High Velocity Integral Vacuum Furnace”. Imbedded in the patent description is Solar Atmosphere’s low pressure carburizing process using acetylene and hydrogen gas ratio’s at pressures less than 15 torr and preheating in a hydrogen atmosphere for surface activation. The fast gas quenching furnace is essential for many of the carburizing alloys for correct metallurgical properties. Because the furnace process results in no residual carbon residue in the furnace, heat treatment of other metals following will not result in product contamination.

For additional process information, contact Don Jordan, vice president and corporate metallurgist, Solar Atmospheres, at dfj@solaratm.com, 800-347-3236, ext. 206, www.solaratm.com

For additional furnace information contact Pete Reh, vice president of sales, Solar Manufacturing, at 267-384-5040 x509 or pkr@solarmfg.com. More information can also be found on www.solarmfg.com.
Vulcanium Opens Sales Offices in UK

NORTHBROOK, ILLINOIS – June 1, 2009
To serve its European customers more efficiently, Vulcanium Metals Incorporated announced the launch of Vulcanium Metals International, a subsidiary based in the United Kingdom. Starting with multiple sales offices located in the UK, Vulcanium expects its international offices will be expanded as needed in the future to other locations in the EU.

In explaining the move, Vulcanium’s President Jerry St. Clair said, “We want to serve our global customers in the most efficient manner possible. Particularly in these tough economic times, they are looking for us to do more. Our UK expansion is really a result of our commitment to reducing the overall supply chain costs to our customers. We feel this expansion is timely and it fits our organization’s focus on Lean systems and delivering the best value to customers.”

Vulcanium is a leading distributor and processor of titanium, serving the aerospace, medical device and industrial markets in the US and across the world. With headquarters and warehouses centrally located near Chicago, IL, Vulcanium carries full line of inventories in sheet, plate, bar and block products of CP, Ti-6Al-4V and Ti-6Al-4V Eli grades. Through its FirstCut+ Services®, Vulcanium offers a comprehensive suite of first-stage processing and inventory management solutions to save supply chain costs and reduce manufacturing bottle-necks to customers. Vulcanium is AS 9100 & ISO 9001 Certified.

For more information, please e-mail titanium@Vulcanium.com or FirstCut@Vulcanium.com or call 888-326-7556.

Uniti Announces A Change To Its Up Gauge Values For Ti CP Plate

Pittsburgh, PA – May 28, 2009 – For all CP plate orders shipped after July 1, 2009, Uniti will be revising the values by which it calculates the billing weight of titanium CP plate. For shipments after July 1, 2009, the previously published “up-gauge” values will be reduced by half. The revised up gauge reference chart is noted below.

The “up-gauge” is a decimal equivalent that changes for each gauge cell of plate and when added to the ordered size will reflect the nominal gauge within the given tolerance range for ASTM (see reference chart below). For example, for ASTM B 265 GR. 2 0.250” (+0.050”, -0.010”) x 96” x 240”, the up-gauge will be 0.010”. The theoretical billing weight will be calculated as follows; 0.163 x 0.260” x 96” x 240” = 976.4 lbs. This billing method will apply to all plate orders entered directly on the mill for production.

For more information visit the website at www.uniti-titanium.com.

<table>
<thead>
<tr>
<th>Specified Thickness, in (mm)</th>
<th>“Up Gauge” to Specified Thickness</th>
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<tbody>
<tr>
<td>0.1875 (4.76) to 0.375 (9.52), excl.</td>
<td>0.0100</td>
</tr>
<tr>
<td>0.375 (9.52) to 0.750 (19.05), excl.</td>
<td>0.0125</td>
</tr>
<tr>
<td>0.750 (19.05) to 1.000 (25.40), excl.</td>
<td>0.0138</td>
</tr>
<tr>
<td>1.000 (25.40) to 2.000 (50.80), excl.</td>
<td>0.0163</td>
</tr>
<tr>
<td>2.000 (50.80) to 3.000 (76.20), excl.</td>
<td>0.0350</td>
</tr>
<tr>
<td>3.000 (76.20) to 4.000 (101.6), excl.</td>
<td>0.0500</td>
</tr>
<tr>
<td>4.000 (101.6) to 6.000 (152.4), excl.</td>
<td>0.0750</td>
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</tbody>
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Notes:
1. Reference specification; ASTM B 265
2. “Up-Gauge” values refer to widths of 8” (213.4mm) to 96” (2438.4mm) inclusive.

TITANIUM UPDATE Newsletter Opportunities

The TITANIUM Update online newsletter is distributed to over 4,500 titanium related subscribers with one printed version which is distributed annually at the TITANIUM 2009 Conference. ITA Member companies are welcome to submit your press releases free of charge for this quarterly publication. Press releases may include information on new industrial products, services, as well as note-worthy industry news.

Interested members need to submit their press releases to the ITA by July 15, 2009 to appear in the September issue of the newsletter. The newsletter will not be released until September 13, 2009 at the start of the TITANIUM 2009 Conference and Exhibition.

All information should be sent electronically to Stacey Blicker at sblicker@titanium.org by July 15, 2009.
The manufacturers of the Titanium industry have joined efforts for their REACH compliance activities and have launched the REACH Titanium Consortium.

REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) is the new EU regulation on chemical substances and is directly applicable in all EU Member States as well as Norway, Iceland and Liechtenstein. It is a complete and radical review of policy on chemical substances. Most chemical substances currently placed on the EU market are subject to registration with the European Chemicals Agency (ECHA) by their manufacturers and/or importers. REACH will require registration for each chemical substance manufactured or imported into the EU in quantities of one tonne or more per year with few exceptions.

Registration is completed by submitting a registration dossier consisting of a technical dossier and chemical safety report. Parts of the technical dossier must be submitted jointly by manufacturers and/or importers of the same substance. In addition, REACH imposes a data-sharing obligation on manufacturers and/or importers of the same substances to ensure that studies and tests are conducted only when necessary, especially if the tests involve animals.

Next Consortium Meeting is June 25, 2009

Purpose and scope of the Titanium Consortium

The Consortium enables manufacturers and importers to join forces and jointly comply with the requirements under the REACH Regulation (1907/2006) for the registration of titanium. In particular, the Members undertake to identify, propose and perform joint studies including vertebrate animal studies for the purpose of Registration.

More specifically, the Members aim to achieve uniform pre-Registration of the Relevant Substances and preparation and submission of Core Data for the Registration of the Substances and, to that effect, they undertake to review and share existing data, fill data gaps, and share the costs incurred in developing missing data.

Accordingly, the Members of the Consortium have decided to join forces in order to pursue the following additional purposes:

- Compile and assess existing studies not involving vertebrate animal;
- Develop uniform classification;
- Prepare proposal for new testing not involving vertebrate animal and perform them;
- Identify, propose and perform jointly vertebrate animal Studies where necessary for Registration, in order to limit the number of such Studies conducted, as required according to the REACH Regulation;
- Prepare jointly the Chemical Safety Report and the Guidance On Safe Use of the Substance for purpose of Registration;
- Coordinate the submission of the Core Data, the Chemical Safety Report and the Guidance on Safe Use of the substance by the lead registrant. The Core Data required for tonnages exceeding 1000 tonnes will be developed by the Members of the Consortium.

In order to achieve these purposes the Members will prepare the Core Data to be submitted to the Agency for Titanium by 1 December, 2010.

In view of the strict deadlines set by the REACH Regulation for the submission of the Core Data required for each Substance, strict adherence to any working deadline or procedures set by the Assembly is an indispensable condition of Membership.

Contact details of the REACH Titanium Consortium Secretariat:
International Titanium Association
1-303-404-2221 Telephone
1-303-404-9111 Facsimile
secretariat@reachtitaniumconsortium.org Email
www.reachtitaniumconsortium.org Web
According to a Guidance Document released by ECHA, based on the example of aluminium articles include

- metal and alloy semi-finished products including bars, blanks (e.g. cut, machined, pressed, etc.), coil (coated and uncoated), extrusion profiles, films and filaments, foil and ribbons, forgings, plate, pipe and tube (cast, seamless and welded), pipe and tube fittings, sintered semi-finished and final products, sheet and strip (coated and uncoated), stampings, wire rod and wire (coated and uncoated), castings (e.g. centrifugal, die, investment, sand, etc.), continuous cast shapes (e.g., bars, billets, blooms, rounds, slabs).

Generally to be an article (and thus escape registration, in most instances)

- The shape, surface or design of the object must:
  - be obtained during production and be special;
  - be relevant for the function of the object;
  - be more important for the function than the chemical composition of the object.

Titanium sponge needs registration as a substance

The titanium in imported scraps will need registration as part of a preparation

- The titanium in titanium alloy ingots will need registration as part of a preparation.

Titanium in bars, billets, wire, tubing etc. is an article and will not need registration in this form.

Titanium sponge is a "substance" under REACH and requires registration if it is manufactured in or imported into the EEA.

No registration for waste, e.g. scrap titanium, if the holder discards it or intends or is required to discard it.

Scrap does not required registration if:

- The titanium has already been registered and is recovered in the EU;
- The titanium is not chemically modified during the recovery treatments and;
- The information in the supply chain is available to the recovering entity.

Generally only imported scrap will require registration as a preparation.

Titanium in preparations (mixtures of substances, including alloys) will require registration, unless the titanium has already been registered and alloying is an identified use of that titanium.

- Titanium ingots and titanium alloy ingots are generally considered a preparation, which will require registration;
- The titanium in ferrotitanium will require registration (unless it is already registered);
- Exception: smelted alloys with titanium, as the smelting process transforms on or more minerals or ores into a metallic alloy;

While the tonnage threshold of 1 tonne is easily reached; titanium (alloy) articles will not require registration unless

- The titanium is intended to be released under normal or reasonably foreseeable conditions of use (i.e. release is necessary for the article to function, such as a sacrificial anode);
- The article contains a substance of a very high concern (SVHC) and the substance is present in those articles above a concentration of 0.1% w/w.
Inside ITA

Deadline Extended For ITA Awards

The International Titanium Association (ITA), Broomfield, CO, has extended the deadline to submit nominations for its 2009 Titanium Achievement Award and Applications Development Award. Friday, June 26, has been designated as the new deadline.

Award winners will be announced at the ITA’s annual conference, which will be held Sept. 13-16 at the Hilton Waikoloa Village, Hawaii. Visit the ITA’s Web site (www.titanium.org) or call the ITA (303-404-2221) for more information or to download nomination forms.

The Titanium Achievement Award recognizes exceptional contributions to the advancement of technology and applications in the titanium industry. Nominees being considered should demonstrate outstanding achievement in a given field along with a body of work that has benefited the titanium industry at large. More than one award winner may be recognized at the discretion of the ITA’s board of directors. Twelve men have received the prestigious honor during the last nine years.

Only ITA members in good standing may propose nominations for the Achievement Award. Members may make multiple nominations. No sitting member of the board or the awards committee is eligible for consideration. All nominations received will be considered “active” for three years; posthumous nominations will be accepted. Nominations will be handled with strict confidentiality and winners (except posthumous) must commit to be present at the ITA’s annual conference.

Separately, the Titanium Applications Development Award, now in its third year, recognizes individuals or groups demonstrating significant advances in the expanded use of titanium. The winner will receive an inscribed plaque and monetary award of $20,000 at the ITA conference.

ITA Members can nominate any person(s) within the titanium sector for the Applications Development Award and may nominate several different candidates for consideration. All nominations will be presented to the ITA Grant Committee. Those making nominations can include supplemental materials (such as a letter of recommendation) for the committee to review. Nominations received will be kept confidential by the ITA, grant committee members and ITA’s board of directors.

Qualifications to consider for the Applications Development Award should include: significant design, material or process achievements towards improving and expanding the use of titanium; promoting titanium products into new applications or enhancing the performance of titanium in an existing application; unveiling a technical breakthrough that specifically expands the use of titanium; inaugurating or influencing outstanding research or marketing programs leading to the expansion of the titanium market or titanium products; and initiating new, imaginative uses for titanium.

Visit the ITA website at www.titanium.org for more information or download a nomination form.

TITANIUM 2009 Conference Features AIRBUS

Continued From Page 1
operators.

Highlights include a review of significant developments that have influenced passengers and airlines, affecting the shape and direction of the aviation industry, as well as determining the level of future demand around the world.

The GMF takes into consideration international travel, equipment trends, load factors and frequencies, the demand for more fuel and eco-efficient airliners, plus the need to replace older generation aircraft.

Network evolution, in response to population growth and resulting air traffic congestion is discussed, as is the role of hub and secondary operations. Airport infrastructure challenges, environmental constraints and the needs of emerging and potentially emerging nations are considered.

All of these factors result in a projected demand, by number and dollar value, for new aircraft, by region, nation and size, from very large to small single-aisle aircraft.

Airbus, a subsidiary of EADS based in France, produces about half of the world’s jet airliners. Mr. Pickup has over 16 years of experience in airline

Continued on Page 10
marketing, primarily helping airlines analyze aircraft performance, economics and fleet planning.

The Airbus Keynote address is just one TITANIUM 2009 highlight. In addition, more than 70 experts from across the supply chain will examine consuming industries including aerospace, industrial, consumer and automotive. New and established manufacturing methods, as well as machining processes and powder technology will also be discussed.

The event last year drew more than 1000 delegates and 70 exhibitors from 34 countries. “The number and diversity of attendees makes this a very cost-effective and efficient networking venue. Delegates can meet with customers and vendors, hear from leading industry executives and attend market-specific forums, all in one trip,” said Metz.

Because TITANIUM 2009 will be held in Hawaii, in recognition of the significant growth of the Asian titanium industry, “We expect a delegation from Japan and participants from China, Korea and other Pacific Rim countries,” Metz commented. As always, there should be strong European and Russian participation.

TITANIUM 2009 registrations are running ahead of last year’s pace. To register or get more information, visit www.titanium.org.

Jennifer Simpson is the executive director of the ITA. Contact the organization at (303) 404-2221 for details or visit www.titanium.org for registration, topics and schedule.

“Communication” is the key word to describe Teh’s role in opening networking opportunities between ITA members in Asia with the rest of the world. It is the type of communication that goes beyond the mere translation of documents or conversation; it’s communication that builds bridges to fortify a handshake with trust and confidence.

Many Chinese businesses employ translators who understand the English language “word for word,” but

Continued on Page 11
most of these translators fail to grasp the full meaning of expressions and intentions, Teh said. Unfortunately, relatively few business leaders in China know of ITA’s services and contributions to the worldwide titanium industry. Her goal is to make the ITA more accessible to companies in China who wish to connect with the international membership. China, despite the many advances in its economy in recent years, is still learning to open up to the outside world.

Her role will be to guide networking outreach efforts. For example, many Chinese executives are not comfortable visiting English-language business Web sites—despite the time and effort that companies invest to develop high-impact graphics and user-friendly features. They are reluctant, according to Teh, because Chinese executives feel they do not “completely and correctly” understand the subtle aspects of the English language—business expressions and jargon, in particular.

As a result, a sincere, parting comment by an ITA member to “please visit my Web site” could be an unintended, awkward roadblock in a fledgling relationship with a Chinese official, rather than a friendly invitation to learn more about a company. The danger is that good intentions can be misconstrued and lost in translation—communication flaws and misunderstandings that could sour a relationship before it even has a chance to unfold. The mission for Teh will be to help companies avoid such pitfalls.

“Having a third-party consultant is important when considering long-term and long-distance relationships,” Teh said. “You need to build bridges between the partners. This third-party has to be reliable, dependable, and honest and must thoroughly understand the cultures and mentalities of both sides.” Teh recommended that, eventually, representatives from both parties should meet face to face.

Clarifying the mandate for the contact window, Simpson explained Teh, along with ITA and its members will continue to comply with the association’s strict anti-trust guidelines. ITA members will not communicate, exchange or use any of the association’s staff members, consultants, meetings or facilities to communicate the pricing of titanium or the terms and conditions upon which it can be sold. For more than 20 years, the ITA has followed this anti-trust resolution, allowing it to thrive as an association. Every person, company and organization is obligated to abide by this resolution when participating in ITA meetings or activities including citizens and entities of other nations that may have different or less restrictive anti-trust regulations and rules, Simpson stated.

Teh also will recruit new members for the ITA. During the TiExpo 2008 trade show held in Beijing, she served as a volunteer at the ITA’s booth on the show floor. This experience became the basis for her relationship with ITA as a contact window and alerted her to the keen interest that many Asian businesses had in learning more about the international titanium trade association. Expanded Chinese participation in the organization would prove to be “rewarding” for existing ITA members, providing a common ground for potential networking opportunities and future projects.

Promoting ITA conferences and exhibitions among Asian executives will be another assignment for Teh. Obtaining visas can be difficult for businessmen and women in many Asian countries. “In order to encourage more people to attend ITA conferences and exhibitions, a contact window can help provide documents for visa application, or to answer questions from the government’s immigration office about what ITA is and its functions or activities,” Teh said. “The purpose is to help prove that ITA conferences are genuine in an effort to reduce the time it currently takes for a Chinese delegate to receive visa approval.”

JJE Consultancy will assist the ITA in developing a working relationship with the Chinese Titanium Association (CTA) and other prospective members and industry representatives. Near-term projects include the launching of the ITA Chinese-language Web site; translating the ITA’s popular “Fundamentals of Titanium” workshop into Chinese; and raising the profile of ITA’s working committees in Asia.

“For the titanium industry, ITA plays an important role as a bridge for the Chinese to step up and get on the international stage,” said Xiangdong Wang, vice director, China Titanium Application and Promotion Leadership Team Office for the CTA. “Having a contact window in China is absolutely necessary and of great value. Through better communication in Chinese, (a contact window) will help them understand ITA better and be beneficial.”
Jennifer Simpson, ITA executive director, said an English language version of the online workshop will debut July 6th followed by Chinese and Japanese language versions that are slated to be unveiled at the ITA’s Titanium 2009 conference Sept. 13 in Hilton Waikoloa Village, Hawaii. Following the conference, the online workshop will be translated into other languages including Spanish, Portuguese, German, Italian and French. In addition, the program will be offered by Seagle (live and in person) at the ITA’s Titanium 2009 conference Sept. 13 in Hilton Waikoloa Village, Hawaii.

Those interested in the workshop can register through the ITA and select the language of their choice. Call the ITA at (303) 404-2221 or visit the organization’s Web site (www.titanium.org) for registration details. Workshop participants who successfully complete the course and pass a final exam in the allotted timeframe will receive an official certificate of completion from the ITA.

Offering the workshop via the Internet, in effect, creates a global classroom community, educating tech-savvy designers, engineers, metallurgists, manufacturers, sales and marketing executives, distributors, university professors and downstream consumers to the advantages of titanium. Simpson said the ITA’s aim in providing this online resource is to dramatically expand the global knowledge base for titanium, exposing industrial decision makers to the metal’s superior performance properties to boost business opportunities for the titanium market. The hope is the online workshop will answer questions and provide information to have titanium specified as a material of choice for demanding applications. "I visualize the online course as a tool to help broaden titanium applications to global markets," Seagle concurred.

The comprehensive titanium tutorial is broken out into 15 sessions: introduction and history; characteristics of titanium; raw materials; melting; mill products; alloys; heat treatment; corrosion; designing with titanium; joining and welding; forming; finishing and cleaning; safety; applications; review and summary. The online workshop features streaming video of Seagle delivering his lectures along with a series of coordinated text, graphics, images, charts and footage of industrial operations.

Those enrolled in the course can achieve a thorough, introductory education on the basics of titanium from the convenience of an office or home computer, according to Simpson. “In addition, they have the benefit of learning from one of the founding fathers in the titanium industry, Stan Seagle, at their own pace and leisure,” she said.

Since retiring after a 40-year career in the titanium industry, Seagle has served as a consultant for the ITA, traveling across North America and throughout the world to present the Fundamentals of Titanium workshop. As the vice president of technology of RMI Titanium Co., a producer of mill products, he was involved in all aspects of production including metallurgy, metal reduction processing and marketing. Several titanium alloys developed by Seagle are still in use for aerospace and corrosion-resistance applications. His resume includes 14 patents and numerous awards including Distinguished Engineering Alumni, Purdue University in 1982; a Fellow of ASM International in 1987; and the Warren Chapter ASM Professional Accomplishment in 1987. In 2001, the ITA named Seagle to its prestigious roster of Lifetime Achievement Award winners.

The idea of offering the workshop as an online seminar with a global reach intrigued Seagle, but early on he realized that the project would involve much more than simply recording his live presentations. Over the years, his preference for doing the in-person/on-location workshops was to take a more informal approach--working from prepared notes as well as off the cuff, relying on his extensive experience to better connect with the particular needs of each session as well as encourage audience participation.

However, in order to create the online workshop, it became clear a more formal script was needed to better serve the needs of an Internet audience. Last January he wrote a script and--much like filming a TV show--his workshop “performance” was recorded over a five-day period in Broomfield, near ITA headquarters. Seagle, who resides in Ohio, chuckled when he recalled the grueling, daily recording sessions that began at 7:30 a.m. and ran through 5 p.m.
The process of editing, rewriting and re-recording the workshop segments was difficult, he admitted, but it did hone the presentation while capturing his titanium insights. Creating a final script also provided a key residual benefit—it yielded a comprehensive text that could be translated into many global languages while preserving the workshop’s knowledge and Seagle’s expertise. The online version of the workshop will be updated periodically, recalibrating some segments of the program based on changing global titanium market conditions so that the presentation remains up to date.

Much like the proverbial wise teacher who learns from his students, Seagle related his inspiration from interacting with the various workshop audiences over the last 12 years. He was especially intrigued by the spectrum of students that attend the program: from top-flight designers and engineers to chief executive officers of manufacturing companies to entry-level associates of a titanium company’s sales and marketing department. The workshop, as advertised, fulfills its “fundamental” obligation to provide a baseline introduction to the titanium market, but it also attracts those with more specific, high-end interests in the metal and its applications.

“There’ve been an interesting mix of people over the years. Once I was approached by the owner of a commercial fence manufacturer, who was wondering if titanium could be used for his product line,” Seagle recalled. “Another time, when I was giving the workshop in Houston, over half the class came from the Johnson Space Center. We sometimes get doctors who have questions about using titanium for dental implants or joint replacements.” Individuals also have approached Seagle regarding welding problems or a design flaw in a particular application.

As for identifying the most enthusiastic workshop participants, Seagle gave high marks to audiences he has encountered in South Africa and Australia—two countries that are key suppliers of raw materials used to develop titanium. The governments of those nations, he said, are investing money and actively supporting their domestic companies that focus on doing business in the titanium market.

“You have high-tech individuals in those countries with a vast knowledge of mining industry who want to add value to their businesses,” Seagle said. “They would rather convert their raw materials to titanium rather than just ship minerals to Japan and North America. They are looking to make the metal and fabricate titanium parts. They want to become more involved in the engineering and design part of the titanium market. They want access to the value-added segment of the supply chain.”

Considering these anecdotal observations, a case can be made that, for more than a decade, Seagle’s in-person Fundamentals of Titanium workshop has indeed planted the seeds to expand interest titanium on a global basis. An online version of the workshop is likely to rapidly accelerate that interest as well as further cultivate a business audience eager to identify new materials to enhance their products.

Seagle is optimistic that, worldwide, the next generation of industrial engineers and manufacturers will invent new ways to exploit the benefits of titanium, especially applications that call for weight reduction to reduce fuel consumption in vehicles and planes and improved corrosion resistance. Today’s ‘green’ business environment favors the use of titanium for improved performance as well as a hedge against anticipated high costs associated with an ever-volatile global energy market, he said.

Fundamentals Of Titanium Classroom Workshops 2009 Schedule:

- Wednesday, September 9th
  Los Angeles, California
- Sunday, September 13th
  **Offered in simultaneous Chinese & Japanese translation**
  Waikoloa, Hawaii
- Friday, October 9, 2009
  Seattle, Washington
  In conjunction with the Metals for the Aerospace Industry 2009 hosted by Metal-Pages.com

For Registration, please visit: http://conferences.metal-pages.com/register/?id=11
For a detailed outline of the workshop as well as registration information visit: http://www.titanium.org/Category.cfm?CategoryID=220
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**Course Objectives & Content**

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**Benefits of this course include:**

- Students receive a certificate of completion from the International Titanium Association. Students will have 16 weeks to complete the course at their own pace and leisure.
- This is the only course of its kind dedicated to titanium metal
- Learn from one of the founding fathers in the titanium industry — Stanley Seagle, Mr. Seagle has been involved for 40 years in all aspects of titanium technology.

**Cost is only**

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- $325 for Non-Members

To learn more about this exciting new workshop visit: [www.titanium.org](http://www.titanium.org)
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David Dai
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