Monday October 4

World Industry Demand Trends

Dawne S. Hickton, RTI International Metals, Inc.
Global Commercial Aerospace

Hunter R. Dalton, ATI Allvac
Titanium Demand and Trends in the Jet Engine Market

James M. Buch, TIMET, Titanium Metals Corporation
Titanium Demand In Military Markets

Michael G. Metz, VSMPO-Tirus US Corporation
An Overview Of The Russia And CIS Market For Titanium Mill Products

Kevin J. Cain, Uniti Titanium
Global Industrial Markets

Yasuyuki Tozaki, Sumitomo Metal Industries, Ltd.
Asia Market Overview

Markus Holz, HEMPEL SPECIAL METALS GmbH
The European Titanium Market Chances and Risks

State of the Industry in China

Vladimir Dolynuk, BAOTI

Mike Xiao, RTI International Metals, Inc.

Economics Panel

Nicholas Pastushan, CIT Transportation Finance
Global Industrial Markets

Gautam Khanna, Cowan and Company, LLC
Major Titanium Platforms -- A Closer Look

Kevin Michaels, AeroStrategy LLC
Airline Economics: Purchase New Aircraft or Fly Parked Aircraft? Implications for New Aircraft Demand in the Coming Years

Industrial Panel I

John Williams, Mogas Industries, Inc. / Paul van Oudenaren, HATCH Ltd.
Developments in the Specification, Design, Manufacture, and Quality Control of Titanium Metal-Seated Ball Valves for HPAL and POX Plant Applications
Laura Nightengale Mercer, HATCH, Ltd. / Tracey Caruana, HATCH Ltd.
Design and Fabrication of Titanium Piping for Pressure Hydrometallurgy Service

Murray S. Pearson, HATCH Ltd.
A Comparison of Refractory Lined, Carbon Steel and Ti EXW-Clad Pressure Vessels for Specific Operating Conditions

George Kim, Perpetual Technologies, Inc. / Nikki Punga, HATCH Ltd.
Use of Nano-Particle Titanium Dioxide (n-TiO2) Thermal Spray Coatings for Abrasion Resistance in Severe Service Applications

Manufacturing: Machining of Titanium

Steve Lovendahl, Boeing, Portland Machined Structures
Titanium Machining Challenges

Thomas J. Long, Kennametal Inc.
Improving Performance in Milling of Titanium Structures

Keith A. Urban, JK Industries LLC
Improving Performance in Milling of Titanium Structures

Michael Standridge, Sandvik Coromant
Optimization In Machining Of Titanium Alloys And The Impact Of The Cutting Tool

Laird Parry, OMAX Corporation
Use of Abrasive Waterjet Cutting Systems for Improving Manufacturing Flexibility and Efficiency with Titanium Components

Jeff Wallace, DMG / Mori Seiki
Titanium: Taming the aluminum of the 21st Century

Military / Aerial

Jeff Masingill, Ducommun AeroStructures Inc.
Current Titanium Aerostructures Manufacturing Capabilities for Ducommun AeroStructures Inc.

Eric V. Roegner, Alcoa Forgings and Extrusions
Update on Large Titanium Forgings for the Aerospace Industry

Abby Lilly, GKN Aerostructures North America
Integrating Military Demand in the Titanium Marketplace

Eric Thiebault, Airbus
Titanium in EADS Military Aerospace

Tuesday October 5
Effective Machining of Titanium Alloys

David J. Wills, ATI Stellram
Efficient Machining Solutions in Titanium Alloys
Mark W. Larson, Makino
Counteracting Cutting Vibration in Machine Tools

Eu-Gene Ng, McMaster University
Challenges of Machining Beta Alloy Titanium

**Industrial / Washington Legislative Update**

Thomas McGovern III, Hogan Lovells
Overview Of Specialty Metals Clause Changes, 2006 - Present

J. Kevin Horgan, deKieffer & Horgan
Review Of Department Of Defense Reports On Specialty Metals

Laurence J. Lasoff, Kelley Drye & Warren
Export Control Of Strategic Materials & Global Trade Policy Initiatives (Ti)

**Manufacturing: Welding of Titanium**

Ian Harris, Edison Welding Institute
Advances in Welding and Additive Manufacturing for Ti Alloys

Daniel G. Sanders, Boeing Research & Technology
Diffusion Bonding Performance Test Results for New Titanium Alloys (BaoTi and VSMPO Fine Grain Titanium Alloy 6Al-4V, TIMET 54M and ATI 425) Using Different Bonding Temperatures

Jerry Gould, Edison Welding Institute
Advances in Solid State Welding Processes for Ti Alloys

**Titanium in Medicine**

Jack E. Lemons, University of Alabama at Birmingham
Current State of Titanium and Titanium Alloys for Biomedical Applications

Donald E. Marlowe, US Food & Drug Administration
The US FDA and International Governmental Agencies Role in Materials for Medical and Surgical Devices

Michael D. Roach, University of Mississippi Medical Center
Recent Advancements in Laboratory Instrumentation and Analysis Techniques to Characterize Fatigue Mechanisms in Metallic Alloys

Lyle D. Zardiackas, University of Mississippi Medical Center
Stress Corrosion Cracking Characterization of Elevated and Nominal Oxygen Weight Percent a+β Ti-15Molybdenum

**Supply Chain Management**

Gary Marzac, Northrop Grumman Information Systems
Lean Supply Chain
Michael Skorija, RTI International Metals, Inc.
Supply Chain / TOC / Lean / Six Sigma - Where & How They Fit Together

Tony Gorski, DemandPoint, Inc.
Avoid Random Acts of Lean in the Quest for Integrated Value Chains

Military Ground & Marine

Stephen L. Luckowski, US ARMY ARDEC
New Titanium Armored Protective Crew Compartment the Next Lightweight Titanium Innovation for Enhanced Soldier Protection

William A. Gooch, US Army Research Laboratory
The Design and Application of Titanium Alloys to U.S. Army Platforms-2010

T. James Dorsch, BAE Systems
Past, Present and Future of Titanium For Ground Combat Vehicles

Aerospace Materials & Processes

David Rugg – Rolls Royce plc
Trends and Issues in Titanium Alloy Use in Gas Turbines

Robert Hill Jr., Solar Atmospheres of Western Pennsylvania
The Vacuum Heat Treatment of Titanium Alloys for Commercial Airframes

Yoji Kosaka, TIMET, Titanium Metals Corporation
Superplastic Forming Properties of TIMETAL®54M

Consumer: The Next Generation

Michael J. Trzcinski, Defense Metals Technology Center
Titanium Pedestrian Bridge Design Competition

Ashley Warsaw, Spectore Corporation
Awakening the Sleeping Giant

Mariah Hay, SCAD
Design and our Health: The Link Between Comfort, Aesthetics and Healing

Suzanne Connor, Spectore Corporation
Expansion of the Titanium Industry: Attracting & Retaining the Next Generation of Consumers

Metal Production: Ore to Mill Products

Renguang Hao, Baoshan Iron & Steel Co., Ltd
Research on Pickling Hot Rolled Commercial Pure Titanium Strip on the Continuous Pickling Line of Special Steel

Luis Ruiz-Aparicio, ATI Allegheny Ludlum
Development of ATI 425® Titanium Alloy Flat Rolled Products
**Baoquan Fu, Western Superconducting Technologies Co., Ltd.**
Effect Of VAR Processing Parameters For Ti-1023 Alloy Macrosegregation

**New Manufacturing**

**James C. Withers, Materials and Electrochemical Research (MER) Corporation**
Status of Alternate Processing to Manufacture Titanium

**Mark Bertolini, Metalysis Ltd.**
Development of a New Generation Pilot Plant for Production of Low Cost Titanium and Titanium Powders Utilising FFC Cambridge Process Principles

**Peter Kean, CSIRO Light Metals Flagship**
Direct Powder Rolling and Hot Roll Densification of Powder for the Production of Titanium and Titanium

**Wednesday October 6**

**World Industry Supply Trends**

**Robert L. Swenson, Global Titanium**
Ferrotitanium

**James M. Nathan, SIMS Metal Management, Inc.**
Titanium Scrap: Being Responsive, Not Reactive

**Michael P. Royer, Reading Alloys Inc. An AMETEK Company**
Master Alloys – Getting Ready For Takeoff!

**Philip Dewhurst, Roskill Information Services**
Titanium Sponge Supply - past, present, and future

**Jason Geiger, Iluka Resources Inc.**
Titanium Mineral Feedstocks History and Future Trends

**Kiyotaki Sando, OSAKA Titanium technologies Co., Ltd**
A Titanium Sponge Producer and Much More For The Future OTC and World Ti Sponge Industry- Looking into the Future

**Powder Metallurgy (Part I)**

**Kamal Akhtar, International Titanium Powder**
Initiating Low Cost Titanium Parts

**Junfa. Mei, University of Birmingham**
Optimising the Properties of Net Shape HIPped Powder Ti-6Al-4V Samples

**Susan M. Abkowitz, Dynamet Technology Inc.**
Advances in PM Titanium: Reduced Cost and Improved Properties

**Olli Nyrhilja, Electro Optical Systems Finland Oy**
Direct Metal Laser Sintering (DMLS) of Titanium Alloys
James W. Sears, South Dakota School of Mines & Technology
Overview of Near Net Shape Manufacturing of Titanium Components at Quad City Manufacturing Laboratory

Medical Applications

François Ory, Forécreu SA
The Art Of Processing Titanium Alloys Into Cannulated Bars For Trauma Applications

David J. Bryan, ATI Allvac
Structural Titanium Biomedical Alloys for Aerospace Applications

Ulf R. Ackelid, Arcam AB
Improved Production Rate In Additive Manufacturing With EBM Multibeam™

Keynote Speaker: Stuart G. Hoffman

Powder Metallurgy (Part II)

Orest M. Ivasishin, Institute for Metal Physics
Innovative Process for Manufacturing Hydrogenated Titanium Powder for Solid State Production of P/M Titanium Alloy Components

Georg I. Abakumov, ADMA Products Inc
Titanium Alloys Manufactured by Low Cost Solid State Powder Metallurgy Processes for Military, Aerospace and Other Critical Applications

Ulf R. Ackelid, Arcam AB
Additive Manufacturing of Gamma Titanium Aluminide by Electron Beam Melting

Charlie J. Barre, Synertech PM Inc.
Challenges and New Solutions for Production of Complex Shape Parts from Ti Alloys via PM HIP

Erik Bahr, Cold Gas Technology GmbH
Cold Spray Systems And Components From CGT GmbH For The Production Of High-End Metal Coatings And Parts

Industrial Panel (Part II)

Tomaz Bucar, Akrapovic d.d.
Titanium Safety Cages In The Automotive Racing Industry

Robert P. Houser, ATI Wah Chang
Titanium Use in the Geothermal Industry

Dsiuke Hayashi, Kobe Steel, Ltd.
A High Performance Titanium Sheet For Plate Type Heat Exchanger (PHE)

Sylvia Gaiani, Akrapovic d.d.
Plastic Deformation Of Titanium Alloys Sheets
Dmitri Ivanov, Aero Titanium AS
Production of Very Large Titanium Castings

Aerospace

John P. Byrne, Boeing Commercial Airplanes
Boeing Commercial Airplane Raw Material Perspective

David J. Bryan, ATI Allvac
ATI 425® Alloy for Aerospace and Defense Applications

Ian D. Molyneux, Rolls-Royce plc
Aero Engine Materials Supply Chain Requirements

Bill Bihlman, AeroStrategy LLC
Aerospace Titanium Demand Outlook