AHS International
The Vertical Flight Technical Society
Marking 70 Years of Service to Vertical Flight

Forum
May 20-22, 2014
Montréal, Québec
Canada

Celebrating International Cooperation in Vertical Flight Technology

Registration Kit
www.vtol.org/forum

Current Forum 70 Sponsors
YOU'RE INVITED … TO FORUM 70!

Don’t miss our 70th Annual Forum and Technology Display!

For 70 years, the AHS Forum has been the premier event for government, industry and academia to exchange ideas, discuss the latest breakthroughs in theory and technology, and work together to tackle the toughest challenges in vertical flight. Since its inception, the Annual Forum has brought together the best technical minds with the world’s leading vertical flight developers. This tradition and legacy is still unmatched today by any other event in the world.

AHS International’s 70th Annual Forum and Technology Display will be held May 20-22, 2014 at the Palais des congrès de Montréal in Montréal, Québec. This year’s theme is “Celebrating International Cooperation in Vertical Flight Technology” as we look at the productive partnerships both within North America and with industry, academia and governments around the world. With some 1200 attendees annually, Forum 70 offers you networking opportunities with leading researchers and the key representatives from the world’s most important vertical flight technology organizations in industry, academia and government.

A full day of activities precedes the Forum on Monday, May 19. This year, AHS features two short courses, taught by industry experts: “The Aerodynamics of Helicopter Accidents,” presented by Jack Cress, and “Rotorcraft Technology,” presented by Dr. Dick Bennett. Alternatively, Monday morning also includes industry tours of Bell Helicopter Canada and CAE. Finally, the 2nd Annual Micro Air Vehicle Student Challenge will see AHS student members compete in a head-to-head MAV fly-off for up to $10,000 in prizes.

Forum 70 will be the biggest ever, featuring some 300 technical presentations on vertical flight research and advanced technology initiatives, in disciplines from acoustics to wind energy. The Forum also includes special panel sessions, the Exhibitor Reception, the Vertical Flight Foundation (VFF) Reception, the Grand Awards Banquet, and the Technology Display – the most extensive exposition of cutting-edge vertical flight technologies in the world.

Forum 70 will continue with its interactive CEO Panel with the chief executives of the international helicopter industry. Moderated by Kenneth Swartz – an award-winning communicator and contributing editor at Canada’s Vertical, Vertical 911 and Canadian Skies magazines – the panel will explore how to enhance continued “International Cooperation in Vertical Flight Technology.”

The CEO Panel will be followed by this year’s esteemed Alexander A. Nikolsky Honorary Lecture, delivered by Prof. Dewey H. Hodges, Georgia Institute of Technology. The title of his lecture is “Unified Approach for Accurate and Efficient Modeling of Composite Rotor Blade Dynamics.”

In keeping with our long tradition, the US Navy and US Army Program Executive Officers (PEOs) for rotorcraft acquisition and their program managers will brief attendees on the latest developments and plans for modernization. Brigadier General Robert Marion, Army PEO for Aviation, will lead the US Army program manager briefings, and Rear Admiral Cindy “CJ” Jaynes, Navy PEO for Air ASW, Assault & Special Mission Programs, will moderate the US Navy/Marine Corps program manager panel. These sessions have always been found to be extremely insightful regarding future US military rotorcraft development needs.

In addition, two special session panels this year spotlight Canada’s vertical flight capabilities and opportunities. The Suppliers and Subsystems Technology Panel features leaders in the Québec rotorcraft industry. Canadian Rotorcraft: From Research to Operations features leaders from Canadian agencies and associations covering rotorcraft. Québec represents 70% of Canada’s aerospace R&D spending, produces more than $12 billion in sales annually, 80% from exports. Collectively, Québec’s aerospace community is comprised of 200+ firms employing more than 42,500 engineers, technicians and other skilled aerospace workers.

Please join us May 20-22, 2014 in Montréal, Québec. You don’t want to miss The Biggest and Best Vertical Flight Technology Conference in the World!

Very sincerely,

Michael J. Hirschberg
AHS Executive Director
FORUM 70 Sponsors

AHS gratefully thanks the following companies for their generous support of the AHS 70th Annual Forum and Technology Display.

- Airbus Helicopters
  - Registration Bags
- Boeing Company
  - Exhibit Hall Luncheons
- CAE, Inc.
  - Technical Session Refreshment Break
- Pratt & Whitney Canada
  - Badge Holders
- Sikorsky Aircraft
  - Exhibitor/Industry Reception
- TenCate
  - Technical Session Refreshment Break
- Bell Helicopter Textron
  - Vertical Flight Foundation Reception & The Grand Awards Banquet
- Lord Corporation
  - Lanyards
- Safran Turbomeca Canada
  - General Session Refreshment Break
- PIC Wire & Cable
  - Forum 70 Proceedings CD
- CAE, Inc.
  - Technical Session Refreshment Break
- Lord Corporation
  - Lanyards
- TenCate
  - Technical Session Refreshment Break
- Safran Turbomeca Canada
  - General Session Refreshment Break

Schedule of Events

All events will take place at the Palais des congrès de Montréal unless otherwise noted.

**Sunday, May 18, 2014**

- **Exhibitor Move-In**
  - 9:00 a.m. – 5:00 p.m.
  - Exhibit Halls 210, 220A and 230 (Exhibitors Only)

- **Exhibitor Registration Open**
  - 9:00 a.m. – 5:00 p.m.
  - Lobby

- **Attendee Registration Open**
  - 2:00 p.m. – 5:00 p.m.
  - Lobby

**Monday, May 19, 2014**

- **Show Office**
  - 6:00 a.m. – 5:00 p.m.

- **Student Volunteer Office**
  - 6:00 a.m. – 5:00 p.m.

- **Registration Open**
  - 7:00 a.m. – 5:00 p.m.
  - (Exhibitors and Registrants)
  - Lobby

- **Speaker Ready Room**
  - 7:00 a.m. – 5:00 p.m.

- **Exhibitor Move-In**
  - 8:00 a.m. – 5:30 p.m.
  - Exhibit Halls 210, 220A and 230 (Exhibitors Only)

- **AHS Technical Council Meeting**
  - 8:00 a.m. – 12 noon

- **Rotorcraft Technology Short Course**
  - Presented by Dr. Richard (Dick) Bennett
  - 9:00 a.m. – 4:00 p.m.

- **Short Course on Aerodynamics of Helicopter Accidents**
  - Presented by John (Jack) Cress
  - 9:00 a.m. – 4:00 p.m.

- **Journal Editor’s Meeting**
  - 12 noon – 1:30 p.m.

- **Session Chair Meeting**
  - 1:30 p.m. – 2:30 p.m.

- **Student Volunteer Meeting**
  - 2:30 p.m. – 4:00 p.m.

- **MAV Student Challenge**
  - 4:00 p.m. – 6:00 p.m.

**Tuesday, May 20, 2014**

- **Show Office**
  - 6:00 a.m. – 5:00 p.m.

- **Student Volunteer Office**
  - 6:00 a.m. – 5:00 p.m.

- **Registration Open**
  - 7:00 a.m. – 5:00 p.m.
  - (Exhibitors and Registrants)
  - Lobby

- **Speaker Ready Room**
  - 7:00 a.m. – 5:00 p.m.

- **Special Session**
  - **US Army Aviation Program Manager Briefings**
  - Moderated by Brigadier General Robert Marion, Army PEO for Aviation
  - 8:00 a.m. – 12 noon

- **Technical Session A**
  - Aerodynamics I
  - Dynamics I
  - Handling Qualities I
  - Manufacturing Technology & Processing I
  - Operations I
  - Product Support Systems Technology
  - Test & Evaluation I
  - Wind Energy I
  - 8:00 a.m. – 12 noon

- **Technical Session A Refreshment Break**
  - 9:30 a.m. – 10:00 a.m.

- **Exhibit Hall Open**
  - 11:00 a.m. – 7:00 p.m.
  - Exhibit Halls 210, 220A and 230

- **Exhibit Hall Luncheon**
  - 12 noon – 1:30 p.m.
Tuesday, May 20, 2014 (Cont.)

Opening General Session
1:30 p.m. – 3:30 p.m

Welcome

Keynote Address

CEO Panel
“International Cooperation in Vertical Flight Technology”
Moderated by Kenneth Swartz, contributing editor at Canada’s Vertical, Vertical 911 and Canadian Skies magazines

Refreshment Break
3:30 p.m. – 4:00 p.m.
Sponsored by Safran/Turbomeca Canada

Alexander A. Nikolsky
Honorary Lectureship
4:00 p.m. – 5:00 p.m.
Prof. Prof. Dewey Hodges, Georgia Institute of Technology,
"Unified Approach for Accurate and Efficient Modeling of Composite Rotor Blade Dynamics"

Exhibitor/Industry Reception
5:00 p.m. – 7:00 p.m.
Sponsored by Sikorsky Aircraft Corp.

Wednesday, May 21, 2014

Show Office
6:00 a.m. – 5:00 p.m.

Student Volunteer Office
6:00 a.m. – 5:00 p.m.

Registration Open
(Exhibitors and Registrants)
7:00 a.m. – 5:30 p.m.
Lobby

Speaker Ready Room
7:00 a.m. – 5:00 p.m.

Special Session
US Navy/Marine Corps Aviation Program Manager Briefings
Moderated by Rear Admiral Cindy “CJ” Jaynes, Navy PEO for Air ASW, Assault & Special Mission Programs

Technical Session B
8:00 a.m. – 12:15 p.m.
Acoustics I
Joint Aerodynamics/Dynamics
Crew Stations & Human Factors
Handling Qualities II
HUMS/CBM I
Modeling & Simulation I
Structures & Materials I
Unmanned VTOL Aircraft & Rotorcraft I

Technical Session B Coffee Break
9:30 a.m. – 10:15 a.m.
Exhibit Hall

Exhibit Hall Open
9:00 a.m. – 5:00 p.m.

AHS Board of Directors Meeting
9:00 a.m. – 12 noon

Exhibit Hall Luncheon
12:15 p.m. – 1:45 p.m.
Sponsored by The Boeing Company

Thursday, May 22, 2014

Show Office
6:00 a.m. – 5:00 p.m.

Student Volunteer Office
6:00 a.m. – 5:00 p.m.

Registration Open
7:30 a.m. – 1:00 p.m.
Lobby

Tech Committee Chair/Session Chair Meeting
7:30 a.m. – 9:00 a.m.

Special Session:
Canadian Rotorcraft: From Research to Operations
10:15 a.m. – 12:15 p.m.

Technical Session D
8:00 a.m. – 12:15 p.m.
Advanced Vertical Flight I
Aerodynamics II
Aircraft Design I
Awards Presentations (1/2)/Manufacturing Technology & Processing II (1/2)
History
Modeling & Simulation III
Propulsion I
Structures & Materials II

Technical Session D Refreshment Break
9:30 a.m. – 10:15 a.m.
Exhibit Hall

Exhibit Hall Open
9:00 a.m. – 12:00 noon

Vertical Flight Foundation Cocktail Reception
6:00 p.m. – 7:00 p.m.
Sponsored by Bell Helicopter

Grand Awards Banquet
7:00 p.m. – 9:30 p.m.
Sponsored by Bell Helicopter
Thursday, May 22, 2014 (Cont.)

Technical Session E 1:30 p.m. – 6:00 p.m.
Advanced Vertical Flight II
Aerodynamics III
Aircraft Design II
Dynamics III (1/2)/Wind Energy II (1/2)
HUMS/CBM III
Propulsion II
Test & Evaluation III
Unmanned VTOL Aircraft & Rotorcraft II

Technical Session E Refreshment Break 3:30 p.m. – 4:00 p.m.

General Information

Passport and Visa Information
Please visit www.vtol.org/forum-travel for Canadian travel requirements.

All Forum 70 attendees must register to receive a badge. Badges must be visibly displayed to gain admittance to both the Exhibit Hall and the technical sessions. FULL THREE-DAY REGISTRATION includes:

- Admittance to all sessions and coffee breaks
- Entry to the Exhibit Hall during scheduled hours
- Tickets to Luncheons, the Exhibitor/Industry Reception, Vertical Flight Foundation Reception and Grand Awards Banquet
- Forum 70 Proceedings CD-ROM

Registration Hours
Sunday, May 18, 2014 2:00 p.m. – 5:00 p.m.
Monday, May 19, 2014 7:00 a.m. – 5:00 p.m.
Tuesday, May 20, 2014 7:00 a.m. – 5:00 p.m.
Wednesday, May 21, 2014 7:00 a.m. – 5:30 p.m.
Thursday, May 22, 2014 7:00 a.m. – 1:00 p.m.

Forum 70 Proceedings
Proceedings will be available in two formats – printed or the CD-ROM version – and contain all papers presented at the technical sessions. Printed Proceedings will not be available until after the Forum.

Registration Fees

(member / non-member)

<table>
<thead>
<tr>
<th></th>
<th>Three Days (by April 16th)</th>
<th>Three Days (after April 16th)</th>
<th>Two Days</th>
<th>One Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular Attendee</td>
<td>$765 / $865</td>
<td>$835 / $935</td>
<td>$650 / $750</td>
<td>$475 / $575</td>
</tr>
<tr>
<td>Speaker or Gov’t Employee</td>
<td>$715 / $815</td>
<td>$775 / $875</td>
<td>$600 / $700</td>
<td>$365 / $465</td>
</tr>
<tr>
<td>Accompanying Spouse</td>
<td>$200</td>
<td>$225</td>
<td>$150</td>
<td>$100</td>
</tr>
</tbody>
</table>

All attendees registering at the non-member rate will be given a complimentary 1-year membership in AHS International.

What registration includes:

- Admittance to all technical and special sessions and entry to the Exhibit Hall during scheduled hours
- Tickets to luncheon(s) and access to all refreshment breaks
- Tickets to the Vertical Flight Foundation Reception and the Grand Awards Banquet (3 Day Registrants Only! $89 for all other attendees.)
- Forum 70 Proceedings CD-ROM (3 Day Registrants Only! $205 for all other attendees.)
- Discounted attendance at the Short Courses

How to register:

- If you are an AHS member, go to www.vtol.org/my-AHS. Log in and click the link for Forum 70 Online registration under “Register online for upcoming meetings and events!” As a way of saying thanks to our loyal members, and to help celebrate 70 years of being the world’s premier professional vertical flight technical society, we’re offering special registration discounts at this year’s Forum. Log in to My AHS to get your individual coupon code and a 5% discount for every 5 years of membership. Been a member for 20 years? You’ll get 20% off! The discount applies only to online registration.
- If you are not an AHS member, you may register online by visiting our membership portal https://ahs.portal.daxko.com. Select the link for “Forum 70” under “Register for Featured Events.” If you have previously registered on this website, log in with your existing Login ID and Password. Those who register at the non-member rate receive a complimentary 1-year membership in AHS.
- You can also download the printable registration form at www.vtol.org/forum and fax it to AHS at +1-703-739-9279, ATTN: Holly Cafferelli or email it to Holly at hcafferelli@vtol.org.
- Should you have any questions about registration, please contact Holly Cafferelli (+1-703-684-6777 x100 or hcafferelli@vtol.org).
- Exhibitors have a separate registration site. If you have already applied for exhibit space and wish to register booth personnel, the link for this site will be sent to your booth’s point of contact. For further information, please contact Liz Malleck (+1-703-684-6777 x107). Speakers may not register as exhibitors.
The CD-ROM is complimentary for all Full Three-Day Registrants! Other registrants may purchase it onsite at the reduced rate of $205.00.

**Publication Bins**

Publication bins will be located in the registration area stocked with the May/June 2014 issue of *Vertiflite* and industry relevant periodicals and literature.

**Speaker Ready Room**

Speakers may organize and review their presentations in the Speaker Ready Room. Hours are from 7:00 a.m. – 5:00 p.m. on Monday, Tuesday, and Wednesday and from 7:00 a.m. – 3:00 p.m. on Thursday.

**AHS Novelty Desk**

AHS publications, shirts, hats, mugs, key chains, golf balls and other new novelty items will be available for purchase at the Novelty Desk located in the AHS Registration area.

**Technology Display**

Be sure to allocate ample time to visit the Forum 70 Technology Display in the Exhibit Hall. Scores of companies and organizations will be presenting the latest developments in vertical flight technology and showing the advancements in airframe, propulsion, avionics, systems integration, simulation technology and much more.

To maximize the opportunity to view exhibits, the Exhibit Hall Technical Briefings and social events such as lunches on Tuesday and Wednesday and the Exhibitor/Industry Reception are held in the Exhibit Hall. The technology display is open to registrants. AHS reserves the right to make modest changes to the Exhibit Hall hours without advance notification to exhibitors or registrants.

**Exhibitor/Industry Reception**

**Tuesday, May 20, 2014**

5:00 p.m. – 7:00 p.m.

Exhibit Halls 210, 220A and 230

All exhibitors and Forum 70 attendees registered for Tuesday will automatically receive tickets to this event.

**Vertical Flight Foundation (VFF) Reception and Grand Awards Banquet**

**Wednesday, May 21, 2014**

The VFF Reception will be held 6:00 p.m. – 7:00 p.m. and the Grand Awards Banquet 7:00 p.m. – 9:30 p.m. Distinguished guests from government agencies and military branches, as well as the international vertical flight industry, will be among the attendees. This exciting event will honor distinguished award recipients for their achievements. Attendees will enjoy an excellent dinner and entertainment. Full registration includes a ticket to this event; all others must purchase tickets in advance. The event is business attire and military uniforms.

**Exhibit Hall Luncheons**

**Tuesday, May 20, 2014**

12 noon – 1:30 p.m.

**Wednesday, May 21, 2014**

12:15 p.m. – 1:45 p.m.

**Hotel Reservations**

AHS International has negotiated exceptional rates with several hotels in Montréal.

ALL ROOM RESERVATIONS MUST BE MADE ONLINE AT www.vtol.org/forum-hotel – PLEASE DO NOT CONTACT HOTEL DIRECTLY. Please book through this link as it defrays the cost of Forum 70, keeping your costs to a minimum.

To receive a discounted Forum 70 room rate, you must confirm guest room reservations by April 16, 2014. After April 16, Forum 70 room reservations will be confirmed on a space-available basis at the prevailing room rate. All reservations must be guaranteed by a major credit card. Guest room rates are posted in Canadian dollars. Please read and make note of hotel cancellation policies before confirming a reservation.

NOTE: if you are eligible to receive a U.S. federal government per diem rate, a federal government photo I.D. is required upon check-in to verify eligibility.

**Exhibit Hall Technical Briefings**

Industry technical briefings from exhibiting companies will be held at the company’s booth in the Exhibit Hall. Some briefings will also be conducted in meeting rooms. These briefings will provide attendees with a more comprehensive overview of the company’s capabilities and services. Exhibitors are invited to contact AHS International to arrange briefings and have the announcement published in the AHS International Forum 70 Final Program. This is a genuine value-added benefit offered to exhibiting companies and attendees.
The Forum 70 Technology Display plays an essential role in advancing vertical flight technology by bringing together the industry’s most creative minds and visionaries with the world’s leading aerospace manufacturers and suppliers. Your company can be part of this dynamic technology showcase by joining AHS as a Forum 70 exhibitor. For more information, please contact David Renzi at AHS Headquarters (see below).

**Exhibit Package Includes:**

- Quality backdrop draping and divider rails.
- Booth identification sign
- Company listing in the Forum 70 Final Program
- Complimentary guest passes for distribution to your customers.
- 24-hour security in the Exhibit Hall
- One Forum 70 “FULL” registration package* for each 10’ X 10’ space purchased (limited to a maximum of five badges). Badges provide access to technical sessions, exhibit hall lunches and receptions, the AHS Vertical Flight Foundation Reception and the Grand Awards Banquet.
- Two exhibitor badges for each 10’ X 10’ unit of display space (not to exceed a maximum of ten badges). This badge provides access to the exhibit hall during scheduled hours and includes exhibitor lunches and receptions.

* The Society requests that full registration badges be issued only to personnel manning exhibit booths and not to AHS Forum speakers.

**Showcasing the Most Advanced Vertical Flight Technology:**

Airframes • Avionics and Sensors • Components • Design Capabilities • Display Systems • Electro-optics • Engine/Propulsion • Fabricators • Fuel and Utility Systems (FUS) • Health and Usage Monitoring Systems (HUMS) • Mission Support • Research and Development • Safety Systems • Simulation and Training • UAVs

**Exhibitor Rates**

<table>
<thead>
<tr>
<th>Category</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHS Corporate Member</td>
<td>$2,650 for each 10' X 10' Unit</td>
</tr>
<tr>
<td>Non-Corporate Member</td>
<td>$2,750 for each 10' X 10' Unit</td>
</tr>
<tr>
<td>Educational Member</td>
<td>$1,950 for each 10' X 10' Unit</td>
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</tbody>
</table>

**Gain access to a leading helicopter manufacturing market.**

Exhibiting at FORUM 70 will introduce your company to the world’s second-ranked aerospace industry center measured in terms of jobs per capita. Located in the Province of Québec, the region represents 70% of Canada’s aerospace R&D spending. The Québec aerospace industry produces more than $12 billion in sales annually, 80% from exports. Collectively, Québec’s aerospace community is comprised of 200+ firms employing more than 42,500 engineers, technicians and other skilled aerospace workers. 98% of these workers are concentrated in greater Montréal.

**Leading Vertical Lift Technology and Aerospace Corporations located in the region:**

- Bell Helicopter Textron
- CAE
- Safran/Messier-Dowty Inc.
- Pratt & Whitney Canada
- Thales Avionics
- Esterline CMC Electronics
- Héroux-Devtek
- Bombardier Aerospace
AHS FORUM 70 Exhibitors - as of 2/24/2014

Palais des congrès de Montréal
Exhibit Hall 210, 220A & 230
(as of 2/24/14)

Lunch Area

Exhibitor ................................................. Booth #
Advanced Rotorcraft Technology, Inc. ........................................ 617
Advanced Torque Products LLC .............................................. 903
Advanced Turbine Engine Company (ATEC) ................................ 427
AIAA ............................................................................. 426
Airbus Helicopters .................................................................. 915
Alcoa Fastening Systems ......................................................... 212
Altair Engineering, Inc. ......................................................... 217
Applied Composites Engineering (ACE) .................................... 810
Armlovy of Connecticut, Inc .................................................... 811
Aurora Flight Sciences .......................................................... 213
Automated Dynamics ............................................................ 623
Avion Solutions, Inc. ............................................................. 112
AVIOR Integrated Products .................................................... 1010
BAE Systems ...................................................................... 214
Bell Helicopter Textron, Inc .................................................... 703
Boeing Company ................................................................... 403
CAE ................................................................................. 226
CD-adapco ........................................................................ 515
Cobham ............................................................................. 412
Continuum Dynamics, Inc ....................................................... 314
Eagle Technologies LLC .......................................................... 117
East/West Industries, Inc ........................................................ 414
Esterline CMC Electronics ...................................................... 312
Fatigue Technology, Inc .......................................................... 910
Flight Light Inc ..................................................................... 711
GARMIN USA .................................................................... 914
GasTOPS Ltd. ....................................................................... 627
GE Aviation ........................................................................ 116
Georgia Institute of Technology .............................................. 1007
Hutchinson Aerospace ............................................................ 815
ITT Endine, Inc. .................................................................... 415
Kamatics RWG ................................................................... 909
Karem Aircraft, Inc. ............................................................... 603
Lord Corporation ................................................................... 611
MDS Coating Technologies Corporation .................................. 315
MicroTek Finishing, LLC ........................................................ 614
NE Automation .................................................................. 905
Penn State University ............................................................. 220
Placeteco Inc....................................................................... 911
Pratt & Whitney Canada ......................................................... 321
QuesTek Innovations LLC ........................................................ 625
REM Surface Engineering ....................................................... 1008
RF System Lab .................................................................. 327
Rotor & Wing Magazine .......................................................... 120
Rotorcraft Operations Ltd ....................................................... 1013
RTI International Metals, Inc .................................................... 227
Saab Defense and Security ISA ................................................ 527
Sentient Corporation ............................................................... 303
Shimco North America ........................................................... 127
Sikorsky Aircraft Corporation .................................................. 103
TenCate Advanced Composites ............................................... 722
Triumph Aerospace Systems - Newport News ......................... 311
University of Maryland .......................................................... 724
University of South Carolina (CBM) ......................................... 921
UTC Aerospace Systems ......................................................... 221
West Coast Industries ............................................................. 514

- Application Pending
- Sold

Aircraft

Sikorsky

Corporation

Sentient

The Boeing

Company

Aircraft

Karem

Aircraft

Bell Helicopter
## Contact Information

Exhibiting Company: ____________________________________________________________

Contact: ________________________________________ Title: __________________________

Address: _______________________________________________________________________

City: __________________________ State: ____________ Zip: _______________ Country: __________

Telephone: ______________________________________  Fax: __________________________

Email: _________________________________________ Website: ___________________________

## Exhibit Space Information

Booth Size: _________________________ (Minimum – 10' x 10')  

Booth Preference:  1st Choice ______________   2nd Choice ______________   3rd Choice _________________

### Early Bird Exhibit Rates (On or Before November 30, 2013)

- **AHS Corporate Member** $2,550 per 10'x10' Unit  
- **Non-Corporate Member** $2,650 per 10'x10' Unit  
- **Education Member** $1,850 per 10'x10' Unit

### Regular Exhibit Rates (After November 30, 2013)

- **AHS Corporate Member** $2,650 per 10'x10' Unit  
- **Non-Corporate Member** $2,750 per 10'x10' Unit  
- **Education Member** $1,950 per 10'x10' Unit

List Companies you do not wish to be near: ______________________________________________________

List Companies you wish to be near: ____________________________________________________________

## Payment Information

- **Early Bird Payment due November 30, 2013**
- **Regular Rate due December 1, 2013**

Make Checks Payable to: AHS International

Mail Payments to: AHS International  
217 N. Washington Street ♦ Alexandria, VA 22314  
Tel: 703-684-6777 ♦ Fax: 703-739-9279 ♦ Email: AHSExhibits@vtol.org

Credit Card Payment:  
- **Visa**  
- **MasterCard**  
- **American Express**

Card Number: ___________________________ Amount: $____________________

Expiration Date: _______________________ Name on Card: __________________________

Card Signature: ___________________________

This application shall become a contract only upon acceptance by AHS. If accepted, the undersigned agrees to abide with terms and conditions described in the Forum 70 Exhibitor Prospectus, Exposition Rules and Registration Manual. This writing embodies the complete agreement between the undersigned and AHS, unless modified by written consent of both parties.

Exhibitor Signature: ___________________________ Date: __________________________

AHS Signature: ___________________________ Booth: ________ Size: ________ Date: ____________
FORUM 70 EXPOSITION RULES

1. SPACE RESERVATION

FORUM 70 exhibit space will be allocated on a first-come, first-served basis. Space requests will be accepted via mail, facsimile, and onsite at Forum 69. AHS International will make every effort to locate exhibits in accordance with exhibitor’s space preferences. AHS International reserves the right to assign exhibit space subject to such parameters as booth space size, design and relationship to similar exhibits. AHS International retains the exclusive right to revise the exhibition hall floor plan and/or move assigned exhibitors as necessary.

2. SUBLEASING OF SPACE

Exhibitor may not sublet exhibit space, nor any part thereof, nor exhibit, offer for sale, or advertise articles not manufactured or sold by the exhibiting company, except where such articles are necessary for proper demonstration or operation of the exhibitor’s display.

3. EXHIBIT SPACE PAYMENT

A signed exhibit application and contract with payment must be received on or before November 30, 2013 to qualify for the “Early Bird Exhibit Rate.” A signed exhibit application and contract with payment received after December 1, 2013 will qualify for the Regular Exhibit Rate.” Unpaid exhibit space may be released on January 1, 2014 and made available for resale.

4. CANCELLATION BY EXHIBITOR

Exhibitors may reduce or cancel exhibit space by submitting written notice to AHS no later than December 31, 2013. If an exhibitor cancels exhibit space, AHS will charge an administrative fee of fifteen percent (15%) of the total display space cost up until December 31, 2013. No refunds will be made by AHS if the written cancellation notice is received at AHS Headquarters after December 31, 2013. All exhibit applications become a binding contract upon acceptance by AHS, including applications received without payment. An exhibitor is obligated to pay the fifteen percent (15%) administrative fee if exhibit space is canceled before December 31, 2013. After December 31, 2013 the exhibiting company is obligated to pay a 100% administration fee and payment is due within 30 days from receipt of a cancellation invoice or five (5) business days prior to move-in of the show or which ever is soonest.

5. OCCUPANCY DEFAULT

Any exhibitor failing to occupy exhibit space shall not be relieved of the obligation of paying the full rental charge of such space. If not occupied by the time set for completion of the installation of the displays, such space shall be taken by AHS International, and re-located or reassigned for such purposes or use as AHS International may see fit.

6. CERTIFICATE OF INSURANCE

Upon signing the Exhibit Space Application and Contract, the exhibiting firm is asked to provide the AHS with a certificate of insurance or an affidavit that it carries $500,000 in liability insurance applicable to its exhibiting at the AHS 70th Annual Forum and Technology Display by March 29, 2014

7. AGREEMENT TO RULES

An Exhibit Space Application and Contract signed by both the AHS and exhibitor representative, constitutes the complete agreement for the right to use the allocated space. AHS is not liable for resultant expenses or loss of revenue in the event that fire, flood, earthquake, strike, labor disorders, or other circumstances beyond the control of AHS prevent the use of the exhibitors' space inside the exhibit hall. The exhibitor, by accepting the allocated space, agrees to the terms and conditions and exhibit hall hours contained in this Exhibitor Prospectus, Forum regulations and subsequent bulletins. Any violation of AHS terms and conditions shall constitute a breach of this contract. AHS's remedy to any breach includes, but is not limited to, termination of any and all rights to the exhibit space assigned by AHS and the forfeiture of any fees paid.
AHS International offers its sincere thanks to the Forum 70 Chairs:

**Prof. Marilyn J. Smith**, Georgia Institute of Technology – Forum Technical Chair

**MMe. Blanche Demaret**, ONERA – Deputy Forum Technical Chair

**Dr. Marc Gervais**, Airbus Helicopters – Acoustics Session Chair

**Dr. Charles Tinney**, The University of Texas at Austin – Acoustics Session Deputy Chair

**Kit Borden**, U.S. Army – Advanced Vertical Flight Session Chair

**Michael Strauss**, Sikorsky Aircraft Corporation – Advanced Vertical Flight Session Deputy Chair

**Mark Potsdam**, U.S. Army – Aerodynamics Session Chair

**Edward Reed**, Sikorsky Aircraft Corp. – Aerodynamics Session Deputy Chair

**Dennis McGuire**, Lord Corporation – Aircraft Design Session Chair

**Dr. Richard Markiewicz**, Defence Science and Technology Laboratory (DSTL) – Aircraft Design Session Deputy Chair

**Dr. Melvin Johnson**, U.S. Army Aviation Engineering Directorate – Avionics and Systems Session Chair

**Dr. Walter Rawle**, Ultra Electronics Flightline Systems – Avionics and Systems Session Deputy Chair

**Dr. Akif Bolukbasi**, The Boeing Company – Crash Safety Session Chair

**Christof Kindervater**, German Aerospace Research Center (DLR) – Crash Safety Session Deputy Chair

**J. Kristin Little**, The Boeing Company – Crew Stations Session Chair

**Jeffery Erwin**, Bell Helicopter Textron, Inc. – Crew Stations Session Deputy Chair

**Dr. Matthew Floros**, U.S. Army Research Lab – Dynamics Session Chair

**Dr. Jinsong Bao**, Sikorsky Aircraft Corp. – Dynamics Session Deputy Chair

**Dr. Michael Jump**, The University of Liverpool – Handling Qualities Session Chair

**Joseph Driscoll**, Sikorsky Aircraft Corporation – Handling Qualities Session Deputy Chair

**Brian Tucker**, Bell Helicopter Textron, Inc. – Health and Usage Monitoring Systems (HUMS) Session Chair

**Eric-Paul Carney**, NAVAIR – Health and Usage Monitoring Systems (HUMS) Session Deputy Chair

**Dr. Bruce Charnov**, Hofstra University – History Session Chair

**Prof. Daniel Schrage**, Georgia Institute of Technology – Manufacturing Technology & Processing Session Chair

**William Harris**, Sikorsky Aircraft Corp. – Manufacturing Technology & Processing Session Deputy Chair

**Dr. Mark White**, The University of Liverpool – Modeling and Simulation Session Chair

**Daniel Spira**, CAE Inc. – Modeling and Simulation Session Deputy Chair

**John Barber**, Bell Helicopter Textron, Inc. – Operations Session Chair

**Terry Parisher**, Northrop Grumman Corp. – Operations Session Deputy Chair

**Trevor Baker**, U.S. Army AATD – Product Support Systems Technology Session Chair

**Jason Johnson**, Heli-One – Product Support Systems Technology Session Deputy Chair

**Eric Sinusas**, Bell Helicopter Textron, Inc. – Propulsion Session Chair

**Michael Spratt**, Rolls-Royce Corporation – Propulsion Session Deputy Chair

**Jeffery Schaff**, Sikorsky Aircraft Corporation – Structures & Materials Session Chair

**Mark Gurvich**, United Technologies Research Center – Structures & Materials Session Deputy Chair

**Oxana Fedak**, The Boeing Company – System Engineering Session Chair

**Dr. Joan Pham**, Sikorsky Aircraft Corp. – System Engineering Session Deputy Chair

**Paul Taylor**, QinetiQ Australia – Test & Evaluation Session Chair

**Marc Alexander**, National Research Council of Canada – Test & Evaluation Session Deputy Chair

**Patrick Fabiani**, ONERA – Unmanned VTOL Aircraft & Rotorcraft Session Chair

**Chad Goerzen**, San Jose State University – Unmanned VTOL Aircraft & Rotorcraft Session Deputy Chair

**Glen Whitehouse**, Continuum Dynamics, Inc. – Wind Energy Technology Session Chair

**Prof. Jonathan Naughton**, University of Wyoming – Wind Energy Technology Session Deputy Chair

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**AHS International Staff Members and Volunteers**

The following AHS staff members and industry volunteers are available to assist you:

- **Forum 70 Programs and Events:**
  - Mike Hirschberg, Executive Director

- **Technical Sessions & Special Sessions:**
  - Kay Brackins, Deputy Director

- **Exhibits & Sponsorships:**
  - David M. Renzi, Director of Meetings & Advertising

- **Audio Visual Oversight:**
  - Dr. Cliff Smith and Dr. Anita Tracy

- **Onsite Registration:**
  - Randy Johnson, Director of Information Resources (Onsite Registrar);
  - and Liz Mallock, Director of Membership (Exhibitor Registration, Corporate Membership Contact, Awards POC)

- **AHS Novelty Desk:**
  - Holly Cafferelli, Director of Administration (Pre-Forum Registrar, Novelty Sales, Proceedings, Speaker Briefing Drop-Off)

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- **Qualities Session Deputy Chair:**
  - J. Kristin Little

- **Session Chair:**
  - David M. Renzi, U.S. Army – Avionics and Systems Session Chair

- **Aerodynamics Session:**
  - Edward Reed, Sikorsky Aircraft Corp.

- **Aircraft Design Session:**
  - Dennis McGuire, LORD Corporation

- **Avionics and System Session:**
  - Dr. Richard Markiewicz, Defence Science and Technology Laboratory (DSTL)

- **Crash Safety Session:**
  - Jeffery Erwin, Bell Helicopter Textron, Inc.

- **Crew Stations Session:**
  - Dr. Matthew Floros, U.S. Army Research Lab

- **Dynamics Session:**
  - Dr. Jinsong Bao, Sikorsky Aircraft Corp.

- **Handling Qualities Session:**
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- **Health and Usage Monitoring Systems (HUMS) Session Chair:**
  - Brian Tucker, Bell Helicopter Textron, Inc.

- **Health and Usage Monitoring Systems (HUMS) Session Deputy Chair:**
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  - Dr. Driscoll, Sikorsky Aircraft Corporation

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  - Brian Tucker, Bell Helicopter Textron, Inc.
FORUM 70 Short Courses

**Short Course on Rotorcraft Technology**

Monday, May 19, 2014 - 9:00 a.m. - 4:00 p.m.
Presented by Dick Bennett, Bell Helicopter Textron (Retired)

This 6-hour short course is designed to present the fundamental technology concepts associated with helicopters to professional personnel who have not had a formal introduction to rotorcraft. Upon completion of the lectures, the attendees will have a better appreciation of the helicopter complexities, a working knowledge of the helicopter terminology/vocabulary, and design practices. The lectures will focus on practical applications of the distinct classical engineering disciplines: dynamics, aerodynamics, mechanics of materials – and how these disciplines are interrelated in the modern helicopter.

The mathematical basis will be briefly covered, but the emphasis will be on the practical applications. Specific topics to be covered include: helicopter configurations, requirements for rotor blades and hubs, isolated rotor aerodynamics, fuselage vibrations, handling qualities, and the helicopter design process.

The lectures will be supplemented with actual helicopter hardware and video clips illustrating the lecture topics. Class handouts will include all PowerPoint files, video clips, and a copy of the text "Introduction to Helicopter Analysis" (as a pdf file).

**Cost:** $350

**Lecturer:** Dr. Richard L. (Dick) Bennett.

Dr. Bennett retired from Bell Helicopter’s research department in 2001, after thirty-five years of focusing primarily on the areas of rotor aeroelasticity, helicopter flight simulation, and active fuselage vibration control systems. Since retirement he has served as rotorcraft consultant to Lockheed Martin, Boeing Helicopters, Sikorsky, LORD Corporation, BAE, Moog, Bell Helicopter, and the National Research Council Canada. He has been a long-time lecturer at The Pennsylvania State University’s "Rotary Wing Technology Short Course."

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**Short Course on the Aerodynamics of Helicopter Accidents**

Monday, May 19, 2014 - 9:00 a.m. - 4:00 p.m.
Presented by Jack Cress, Vortechs Helicopter Analytics

This course will cover hover performance, transition to forward flight, downwind effects, anti-torque issues, rotor system characteristics (articulated, teetering, bearingless, hybrids), turboshaft engine characteristics, high speed forward flight characteristics, descent phenomenon (VRS, autorotation), dynamic rollover and ground resonance.

The course is taught by Jack Cress, a former helicopter pilot and aeronautical engineer. He has 40 years of experience teaching short courses on related topics. The course would be beneficial to pilots, young engineers, prospective investigators and to experienced engineers interested in the interface of rotorcraft technology and common operational challenges. Participants will receive a notebook and a CD of the course material.

**Cost:** $350

**Lecturer:** John P. (Jack) Cress

Mr. Cress was a career helicopter pilot in the U.S. Marine Corps (USMC), having flown nearly 4,000 hours during his near 25 years of military service. His non-flying duties included those of a NAWAIR Program Director, Depot Engineering and Quality Officer, and IMA Maintenance Officer. He also was twice assigned to the U.S. Navy’s Aviation Safety School, where he initiated the course in helicopter aerodynamics and also taught elemental structural failure analysis. He has taught related courses for the University of Southern California, the NTSB, and at various international venues. Mr. Cress earned a B.S. in Aeronautical Engineering from the Ohio State University in 1967, and completed course work for the M.S. in Aeronautical Engineering at the Naval Postgraduate School in 1979. He also earned the Program Manager credential from the US Defense Systems Management College in 1991. Following military service, Mr. Cress was employed as a product manager with Simula Safety Systems, where he was closely involved in the development of crashworthy, energy-absorbing seating systems for numerous rotary wing aircraft. Mr. Cress is currently the proprietor of Vortechs Helicopter Analytics, where he serves in investigational, instructional, and consultancy roles relating to various domestic and international operations. He maintains active memberships in the International Society of Air Safety Investigators (ISASI), the ASM International and AHS International.