



# 2008 JUSTSAP - PISCES Symposium

“Pioneering Multinational Pathways to Space”

*Hilton Waikoloa Village  
Kohala Coast, Island of Hawaii  
November 9 - 13, 2008*

Date	Time	Event
<b>Nov. 9</b> (Sunday)		<b><u>Pre-Symposium Activities</u></b>
	13:00 – 18:00	<b>Delegate Registration</b> <i>Waikoloa Promenade</i>
	15:00 – 17:30	<b>JUSTSAP Steering Committee Meeting I</b> <i>Kona 4</i>
	18:30 – 20:00	<b>Delegate Reception</b> <i>Lagoon Lanai</i> <i>Featuring: Magic Strings from the Kona Symphony Orchestra</i>
<b>Nov. 10</b> (Monday)	7:30 – 15:00	<b>Delegate Registration</b> <i>Waikoloa Promenade</i>
	7:30 – 8:30	<b>Continental Breakfast</b> <i>Water's Edge Ballroom</i>
		<b><u>OPENING CEREMONIES</u></b> <i>Kona 4 &amp; 5</i>  <i>Hawaiian Pule by Koa El Rice &amp; Leilehua Yuen</i>
	8:30 – 8:45	<b>Welcome - <i>Ho'okipa I Ka Malihini</i></b>  Mark McGuffie, <i>Executive Director</i> <i>Hawaii Island Economic Development Board</i>  Rose Tseng, <i>Chancellor</i> <i>University of Hawaii at Hilo</i>  Will Espero, <i>Senator</i> <i>Hawaii State Legislature</i>
	8:45 – 8:50	<b>Words of Aloha</b>  The Honorable James “Duke” Aiona, Jr. <i>Lt. Governor of Hawaii</i>
	8:50 – 9:10	<b>JUSTSAP: The Year in Review</b>  Osamu Odawara, <i>Japan Vice-Chairman - JUSTSAP</i> Frank Schowengerdt, <i>U.S. Vice-Chairman - JUSTSAP</i>

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<b>Date</b>	<b>Time</b>	<b>Event</b>
Nov. 10	9:10 – 9:30	<b>Chairman's Report:</b> <b><i>Expanding JUSTSAP's International Potential</i></b> Stephen Day, <i>Chairman - JUSTSAP</i>
	9:30 – 9:50	<b>Hawaii as a Catalyst for Multinational Space Exploration</b> The Honorable George R. Ariyoshi <i>Former Governor of the State of Hawaii</i> <i>U.S. Advisor – JUSTSAP</i>
	9:50 – 10:00	<b>Symposium Agenda &amp; Logistics</b> Jim Crisafulli, <i>Executive Director</i> <i>JUSTSAP Secretariat</i>
	10:00 – 10:20	<b>Refreshments &amp; Group Photo Session</b> <i>Kona Promenade</i>
	10:20 – 11:00	<b>JUSTSAP Project Team Visions &amp; Goals</b> <b>Pacific International Space Center for Exploration Systems</b> Frank Schowengerdt, <i>PISCES Director - UH Hilo</i> Robert Fox, <i>PISCES Deputy Director - UH Hilo</i> <b>Space-Based Energy Systems</b> John Mankins, <i>CEO - ARTEMIS Innovation Management Solutions</i> Nobuyuki Kaya, <i>Professor of Engineering - Kobe University</i> <b>Commercial Utilization of the International Space Station</b> Paul Eckert, <i>International Strategist - The Boeing Company</i> Alex Ignatiev, <i>Director - Center for Advanced Materials, U. of Houston</i> <b>Robotic Precursor Missions</b> Doug Craig, <i>Manager - Ground Analog Program - NASA HQ</i> Tetsuji Yoshida, <i>Senior Manager - Shimizu Corporation</i>
	11:00 – 11:15	<b><i>Celebrating NASA's 50<sup>th</sup> Anniversary</i></b> (Video Presentation)
	11:15 – 12:00	<b>Keynote Address:</b> <b><i>Pioneering the Space Frontier – The Next 50 Years</i></b> Peter Worden, <i>Director</i> <i>NASA Ames Research Center</i>
	12:00 – 13:15	<b>Luncheon</b> (Host: U.S. Secretariat) <i>Kohala 1 &amp; 2</i> Speaker: Paul Eckert, <i>International Strategist</i> <i>The Boeing Company</i> Topic: <i>Using Commerce to Make Space Affordable</i>

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<b>Date</b>	<b>Time</b>	<b>Event</b>
<b>Nov. 10</b>	13:30 – 15:30	<b><u>PISCES PLENARY I: Strategic Planning</u></b> <i>Kona 4 &amp; 5</i>
		<b>PISCES Progress Report &amp; Strategic Plan Overview</b> Frank Schowengerdt, <i>Director - PISCES</i>
		<b>Higher Education Program</b> Robert Fox, <i>Deputy Director - PISCES</i>
		<b>ISRU Program &amp; Simulated Lunar Outpost</b> Michael Duke, <i>Chief Lunar Scientist - PISCES</i>
		<b>Robotics Program</b> Neville Marzwell, <i>Technology Innovations Manager - NASA JPL</i>
		<b>Facilities, Fundraising &amp; Business Operations</b> Frank Schowengerdt, <i>Director - PISCES</i>
		15:30 – 15:45
	15:45 – 17:30	<b><u>PISCES PLENARY I (continued)</u></b>
		<b>Education &amp; Outreach Program</b> Beth McKnight, <i>Education &amp; Outreach Coordinator - PISCES</i>
		<b>PISCES Cultural Advisory Council</b> Ahia Dye, <i>Council Member</i>
18:30 – 21:00	<b>UH Hilo College of Agriculture Collaboration</b> Bill Steiner, <i>Dean of the College of Agriculture - UH Hilo</i>	
	<b>Colorado School of Mines Collaboration</b> Frank Schowengerdt, <i>Director - PISCES</i>	
	<b>Reception &amp; Dinner</b> (Host: U.S. Secretariat) <i>Water's Edge Ballroom</i>	
<b>Nov. 11</b> (Tuesday)	7:30 – 8:30	<b>Continental Breakfast</b> <i>Water's Edge Ballroom</i>
	8:30 – 10:00	<b><u>Project Team Meetings</u></b> <ul style="list-style-type: none"><li>• Robotic Precursor Missions to the Moon and Mars <i>Kona 1</i></li><li>• ISS Commercial Utilization <i>Kona 2/3</i></li><li>• Space-Based Energy Systems <i>Kona 4/5</i></li></ul>

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<b>Date</b>	<b>Time</b>	<b>Event</b>
<b>Nov. 11</b>	10:00 – 10:15	<b>Refreshment Break</b> <i>Kona Promenade</i>
	10:15 – 12:00	<b><u>Project Team Meetings</u></b> <ul style="list-style-type: none"><li>• Robotic Precursor Missions to the Moon and Mars <i>Kona 1</i></li><li>• ISS Commercial Utilization <i>Kona 2/3</i></li><li>• Space-Based Energy Systems <i>Kona 4/5</i></li></ul>
	12:00 – 13:30	<b>Luncheon</b> (Host: Japan JUSTSAP Association) <i>Kohala 1 &amp; 2</i>  Speaker: Kazuya Suzuki, <i>President</i> <i>Sanritz Automation Company Ltd.</i>  Topic: <i>Tele-Robotics Demonstration (rover teleoperation)</i>
		<b><u>PISCES PLENARY II: NASA Day Forum</u></b> <i>Kona 4 &amp; 5</i>
	13:30 – 14:00	<b>Keynote Address: Innovating Space Partnerships</b> Doug Comstock, <i>Director</i> <i>Innovative Partnership Program - NASA Headquarters</i>
	14:00 – 15:00	<b>NASA's Advanced Technology/Ground Analog Programs</b> Doug Craig, <i>Manager</i> <i>Ground Analog Program - NASA Headquarters</i>
	15:00 – 15:30	<b>NASA's Ongoing Field Tests at PISCES</b> Bill Larson, <i>Chief</i> <i>Applied Sciences Division- NASA Kennedy Space Center</i>
	15:30 – 15:45	<b>Refreshment Break</b> <i>Kona Promenade</i>
	15:30 – 17:00	<b><u>Student Design Competition</u></b>  Mike Duke, <i>Design Competition Coordinator</i> <i>(Presentations and Exhibits by Winning Teams)</i>
	18:30 – 21:00	<b>Reception &amp; Dinner</b> (Host: JUSTSAP Japan Association) <i>Lagoon Lanai</i>

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<b>Date</b>	<b>Time</b>	<b>Event</b>
<b>Nov. 12</b> (Wednesday)	7:30 – 8:30	<b>Continental Breakfast</b> <i>Water's Edge Ballroom</i>
	8:30 – 10:00	<b><u>Project Team Meetings</u></b> <ul style="list-style-type: none"><li>• Robotic Precursor Missions to the Moon and Mars <i>Kona 1</i></li><li>• ISS Commercial Utilization <i>Kona 2/3</i></li><li>• Space-Based Energy Systems <i>Kona 4/5</i></li></ul>
	10:00 – 10:15	<b>Refreshment Break</b> <i>Kona Promenade</i>
	10:15 – 12:00	<b><u>Project Team Meetings</u></b> <ul style="list-style-type: none"><li>• Robotic Precursor Missions to the Moon and Mars <i>Kona 1</i></li><li>• ISS Commercial Utilization <i>Kona 2/3</i></li><li>• Space-Based Energy Systems <i>Kona 4/5</i></li></ul>
	12:00 – 13:30	<b>Luncheon (Host: U.S. Secretariat)</b> <i>Kohala 1 &amp; 2</i>  Speaker: Steve Heard, <i>Executive Producer</i> <i>The Futures Channel</i>  Topic: <i>Special Screening – New Futures Channel Documentary on Space-Based Solar Power</i>
		<b><u>PISCES PLENARY III: Industry Day Forum</u></b> <i>Kona 4 &amp; 5</i>  <i>(companies w invited to display exhibits and/or demonstrations on the periphery of the plenary room)</i>
	13:30 – 14:00	<b>Keynote: The Role of Industry in Space Exploration</b> David Logsdon, <i>Executive Director</i> <i>Space Enterprise Council - U.S. Chamber of Commerce</i>

<b>Date</b>	<b>Time</b>	<b>Event</b>
Nov. 12	14:00 – 15:30	<b>Industry Panel: <i>A Unique Lunar Equipment Testbed – Near-Term Industry Uses for PISCES</i></b>  <b>Introduction</b> Paul Eckert, <i>International Strategist</i> <i>The Boeing Company</i>  <b>Panelists:</b> Bob Richards, <i>CEO</i> <i>Odyssey Moon</i> John Kohut, <i>CEO</i> <i>Astrobotic Technology, Inc.</i> Larry Clark, <i>Manager</i> <i>Spacecraft Technology Development - Lockheed Martin</i> Ed Banas, <i>Manufacturing Manager</i> <i>Honeywell</i>
	15:30 – 15:45	<b>Refreshment Break</b> <i>Kona Promenade</i>
	15:45 – 17:30	<b>International Industry Panel: Commercial Technologies with Terrestrial and Extra-Terrestrial Applications</b>  <b>Introduction</b> Dan Bland, <i>President</i> <i>JAMSS America</i>  <b>Panelists:</b> Taber MacCallum, <i>CEO</i> <i>Paragon Space Development Corporation</i> Bart Thompson, <i>Innovation Engineer</i> <i>Michelin Tire Company</i> Kazuya Suzuki, <i>President</i> <i>Sanritz Automation Company Ltd.</i>
	18:30 – 21:00	<b>Reception &amp; Dinner</b> (Host: U.S. Secretariat) <i>Kohala 1 &amp; 2</i>  Speakers: John Mankins, <i>President</i> <i>ARTEMIS Innovation Management Solutions LLC</i> Nobuyuki Kaya, <i>Professor of Engineering</i> <i>Kobe University</i>  Topic: <i>Space Solar Power as a Renewable Energy Resource</i>

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<b>Date</b>	<b>Time</b>	<b>Event</b>
<b>Nov. 13</b> (Thursday)	7:00 – 8:00	<b>Continental Breakfast</b> <i>Water's Edge Ballroom</i>
	8:00 – 10:00	<b><u>Project Team Meetings</u></b> <ul style="list-style-type: none"><li>• Robotic Precursor Missions to the Moon and Mars <i>Kona 1</i></li><li>• ISS Commercial Utilization <i>Kona 2/3</i></li><li>• Space-Based Energy Systems <i>Kona 4/5</i></li></ul>
	10:00 – 10:15	<b>Refreshment Break</b> <i>Kona Promenade</i>
	10:15 – 12:00	<b><u>Project Team Meetings</u></b> <ul style="list-style-type: none"><li>• Robotic Precursor Missions to the Moon and Mars <i>Kona 1</i></li><li>• ISS Commercial Utilization <i>Kona 2/3</i></li><li>• Space-Based Energy Systems <i>Kona 4/5</i></li></ul>
	12:00 – 13:30	<b>Luncheon</b> (Host: U.S. Secretariat) <i>Kohala 1 &amp; 2</i>  Speaker: Ryutaro Suzuki, <i>Group Manager</i> <i>National Institute of Information and</i> <i>Communications Technology (NICT)</i>  Topic: <i>Recent Activity on Space Communications Projects</i> <i>ETS-VIII, WINDS, and STICS</i>
	13:30 – 15:30	<b>JUSTSAP Steering Committee Meeting II</b> <i>Kohala 3</i>  <b><u>CLOSING PLENARY</u></b> <i>Kona 4 &amp; 5</i>
	15:30 – 16:10	<b>Project Team Reports</b> <ul style="list-style-type: none"><li>• Pacific International Space Center for Exploration Systems (PISCES)</li><li>• Robotic Precursor Missions to the Moon and Mars</li><li>• ISS Commercial Utilization</li><li>• Space-Based Energy Systems</li></ul>

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<b>Date</b>	<b>Time</b>	<b>Event</b>
<b>Nov. 13</b>	16:10 – 16:25	<b>Steering Committee Report</b> <i>Mr. Stephen Day, Steering Committee Chairman</i>
	16:25 – 16:45	<b>Annual JUSTSAP Awards</b> <ul style="list-style-type: none"><li>• <i>Outstanding Sustained Service Awards – Individual</i></li><li>• <i>Outstanding Sustained Service Awards – Team</i></li><li>• <i>Outstanding Sustained Service Awards – Institutional</i></li><li>• <i>Spirit of Innovation Awards</i></li><li>• <i>Burton I. Edelson Memorial Awards for Distinguished Service</i></li><li>• <i>The Space Exploration Pioneer Award</i></li></ul>
	16:45 – 17:00	<b>Next Steps and Concluding Remarks</b> <i>JUSTSAP Chairman</i>
	18:00 – 21:00	<b>Closing Dinner</b> (Host: U.S. Secretariat) <i>Buddha's Point &amp; Ocean View Terrace</i> <i>International Clam Bake by the Sea (clams provided) with</i> <i>Richard Lee's Jazz Quartet</i>