

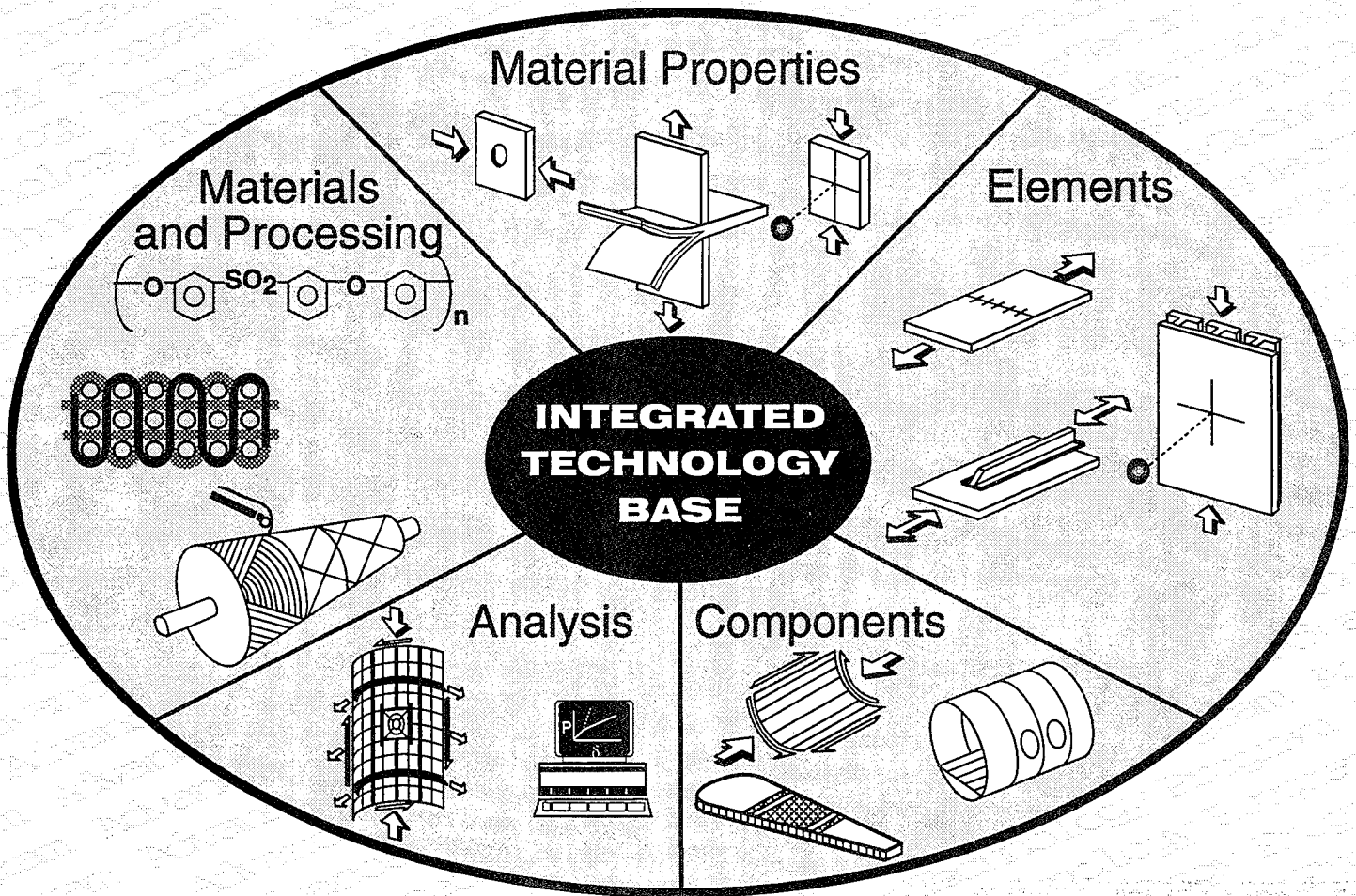
Agenda and Registration

DTIC
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Sixth NASA/DOD/ARPA

Advanced Composites Technology

Conference



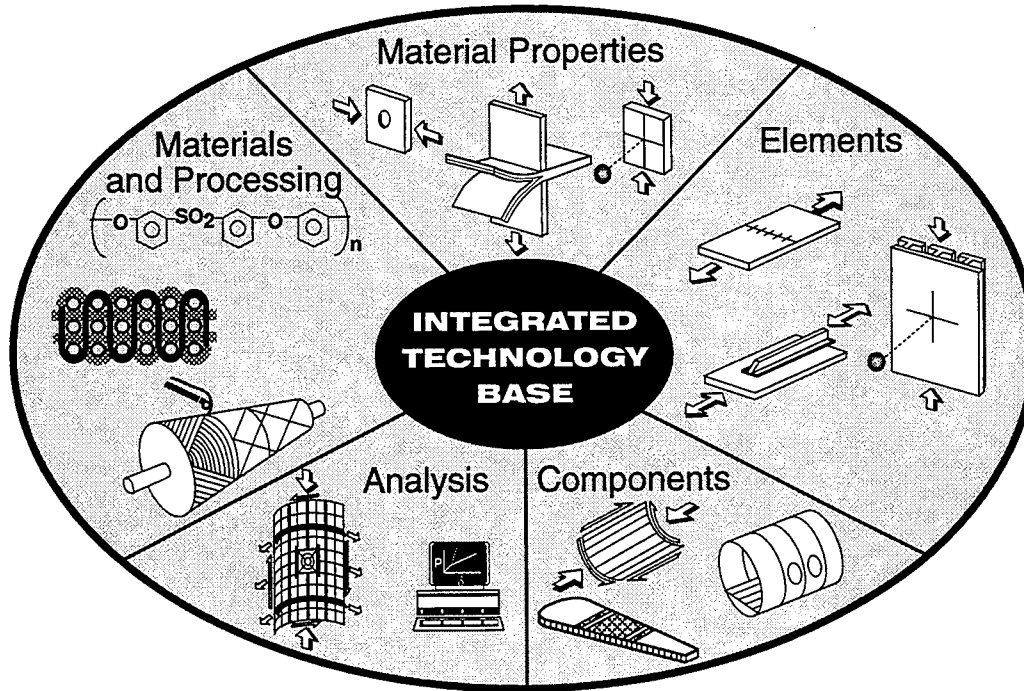
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August 7-11, 1995

Sponsored by
NASA, USAF and ARPA

Anaheim Hilton and Towers
Anaheim, CA

Sixth NASA/DOD/ARPA Advanced Composites Technology Conference



- *NASA ACT Program*
- *DOD/DMLCC Program*
- *ARPA/ACP Program*
- *Composites fuselage technology*
- *Composites wing technology*
- *Supporting Structures and Materials Technologies*

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Jointly Sponsored by:
NASA Langley Research Center
Hampton, Virginia
and
USAF Wright Laboratory
Wright-Patterson Air Force Base, Ohio
and
Advanced Research Projects Agency
Defense Science Office
Arlington, Virginia

C O N F E R E N C E D E A D L I N E S

FEDD Waiver	June 19, 1995
Conference Preregistration	July 3, 1995
DOD Security Clearance Certification	July 3, 1995
Hotel Registration	July 7, 1995
Speaker's Biographical Sketch	July 14, 1995
Manuscript Submittal	August 31, 1995

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PURPOSE

The *Sixth NASA/DOD/ARPA Advanced Composites Technology Conference* is sponsored by the NASA Langley Research Center and the USAF Wright Laboratory to review recent advances in research and development of composites technology for application to military and commercial aircraft. The NASA Advanced Composites Technology (ACT) Program is a major multi-year research initiative to achieve a national goal of technology readiness early in the next decade. The Wright Laboratory Design and Manufacturing of Low Cost Composites (DMLCC) initiative is seeking major reductions in acquisition and support costs through demonstrated integration of design and manufacturing technology. The ARPA Affordable Composites for Propulsion is developing innovative manufacturing technology for reducing the cost and weight of the next generation of jet engines. The underlying theme of these programs is technology "affordability." The first conference was held at Seattle, WA, November 1990. The second conference was an interim review held at Lake Tahoe, NV, November 1991, as part of the *Ninth DOD/NASA/FAA Conference on Fibrous Composites in Structural Design*. The third conference was held at Long Beach, CA, June 1992. The fourth conference was held at Salt Lake City, UT, June 1993. The fifth conference was held in Seattle, WA, August 1994 and featured technical presentations on major research findings in the ACT Program since the last review and recent progress in four major manufacturing cost areas in the DMLCC program.

ORGANIZATION

General Chairperson

Mark J. Shuart, NASA Langley Research Center

Session Organizers

Damodar R. Ambur, NASA Langley Research Center

Charles E. Harris, NASA Langley Research Center

H. Benson Dexter, NASA Langley Research Center

W. Thomas Freeman, NASA Langley Research Center

Diana Carlin, USAF Wright Laboratory

F. Konrad Haake, Pratt & Whitney, United Technologies Corporation

Conference Coordinator

James E. Gardner, NASA Langley Research Center

GENERAL INFORMATION

Location/Dates

The *Sixth NASA/DOD/ARPA Advanced Composites Technology (ACT) Conference* will be held in the Grand Ballroom at the Anaheim Hilton and Towers, 777 Convention Way, Anaheim, CA, 92802, on August 7-11, 1995. A map of the Anaheim area and a floor plan of the Anaheim Hilton and Towers are provided.

Conference Registration

All attendees are required to register for the Conference. Preregistration is requested and may be accomplished by completing the Preregistration Form provided and returning it no later than July 3, 1995 to

James E. Gardner
NASA Langley Research Center
ATTN.: ACT Conference
MS/118
Hampton, VA 23681-0001

Advanced payment of the conference registration fee of \$250.00 is requested; however, you may pay at the Conference Registration Desk on-site (**Credit card payment will not be accepted**). Checks should be made payable to: **NASA Conference Center**. Multiple Preregistration Forms may be paid by a single check if paid by July 3, 1995. Walk-in registration will be permitted only if space is available.

The conference registration fee covers attendance to all technical sessions (dependent upon approved clearance for the DOD session), a printed copy of the conference proceedings, all refreshment breaks, a reception, the tour, and the California Dreaming outing. Tickets for guests to attend the reception and the California Dreaming outing may be purchased separately; however, reservations should be noted on the Conference Preregistration Form provided.

The Conference Registration Desk will open in the Grand Ballroom Foyer on Monday, August 7, 1995 at 8:00 a.m. and will remain open throughout the Conference. A conference badge, the final agenda, any applicable tickets, and a receipt will be distributed during registration.

Anaheim Hilton and Towers Accommodations

Arrangements have been made to retain a block of rooms at the Anaheim Hilton and Towers for the special rate of \$99.00 Single/Double. A tax of 13 percent will be added to all room rates. A special Government inclusive rate of \$99.00 Single/Double is available to all attendees with Government identification. Reservations may be made directly with the Anaheim and Hilton Towers by telephone at (714) 750-4321 or by completing the Reservation Form provided and mailing it directly to the Anaheim Hilton and Towers or by faxing it to (714) 740-4252. If reservations are made by telephone, please identify yourself with the Sixth NASA/DOD/ARPA Advanced Composites Technology Conference to get the special rate. Reservations may be guaranteed by credit card.

The reservation deadline is **July 7, 1995**. After this date, the reservations will be made on a space-available basis at the current room rates. The NASA Langley Research Center will not be responsible for the Anaheim Hilton and Towers reservations. Check-in time is 3:00 p.m. and check-out time is 12:00 noon.

Valet parking is available.

Transportation

The Anaheim Hilton and Towers does not provide transportation from the airport. The John Wayne airport would be more convenient to use for the conference. A taxi, limousine, or rental car will be required

Documentation

Proceedings of the conference will be published as a NASA Conference Publication (CP) and will be mailed to all registered attendees after the Conference.

Inquiries

Inquiries concerning registration or general conference details should be directed to James E. Gardner, NASA Langley Research Center, at (804) 864-6003 or by FAX at (804) 864-8088.

Security

The Conference is subject to NASA FEDD (For Early Domestic Dissemination) restrictions. Under the FEDD regulations, attendance is limited to U.S. Citizens, registered aliens employed by U.S. firms operating with the U.S. and registered aliens who serve U.S. Government contractors and grantees. Approval of attendance by registered aliens must be requested by the employer using the Request for Waiver provided. This form must be received by **June 19, 1995**. Please mail the Request for Waiver Form to:

James E. Gardner
NASA Langley Research Center
ATTN.: ACT Conference
Mail Stop 118
Hampton, VA 23681-0001

Or FAX the form to James E. Gardner at (804) 864-8088. Registered aliens will not be permitted to attend any session without prior approval by the NASA Langley Research Center FEDD Control Officer.

Attendance at the DOD Session

In addition, to attend the Tuesday, DOD session, all **non-Government** personnel (whether U.S. citizen or registered alien) must complete and submit the DOD Security Clearance Form provided. This form requires the registration number for the company's Military Critical Technical Data Agreement (DD Form 2345) and must be certified by a corporate security official. To obtain a DD Form 2345 (individual or company), or for more information regarding the form, please contact:

Defense Logistics Services Center
Federal Center
Battle Creek, MI 49017-3084

The telephone numbers are 1-800-352-3572 or (616) 961-4358.

Please return the Security Clearance Form with your preregistration material. Please note that this form is required for attendance at the Thursday DOD session only. No non-Government personnel will be permitted to attend the DOD session without prior clearance.

Government employees who plan to attend the DOD session must bring their government or military ID to the Conference. The Security Clearance Form is not required for government employees.

If you have any questions concerning attendance at the DOD session, please contact Dave Beeler, Wright Laboratory, (513) 255-7277 or FAX (513) 476-4420.

NOTE: Any duplicating, transferring, or altering of badges for the DOD session will be construed as a violation of DOD Directive 5230.25 and is punishable by federal law.

Messages/Facsimile Transmissions

A message board will be maintained in the conference registration area. To contact a participant during the Conference, telephone the Conference Registration Desk at (714) 750-4321.

To transmit information to conference participants, the facsimile number is (714) 740-4252. Be certain to indicate the recipient is attending the NASA/DOD/ARPA Conference. There is a nominal fee per page charge to receive transmissions and for conference participants to send transmissions from the Anaheim Hilton and Towers.

Speakers' Briefing/Breakfast

Conference speakers, session chairmen and coordinators for the day will meet each morning at 6:45 a.m. starting Tuesday, August 8, 1995, for breakfast and to review logistics for that day's session(s).

Reception

A reception will be held Monday evening, August 7, 1995, from 6:30 p.m. until 8:30 p.m. Heavy hors d'oeuvres will be provided, and a cash bar will be available for mixed drinks. Tickets for guests to attend the reception are \$25.00 each. Please check the Conference Preregistration Form for reservations.

Lunch

Luncheon will be available on August 8, 9 and 10, 1995, for the participants and their guests. A fine salad and sandwich bar will be provided for your enjoyment. Tickets for guests to attend the luncheon are \$20.00 each. Please check the Conference Preregistration Form for reservations.

California Dreaming

On Wednesday, August 9, 1995, conference attendees and guests will be transported by motor coach to the Balboa Peninsula for a "California Dreaming" Beach Party and Harbor Cruise. The Balboa pavilion will be the "central" location for the party. A Buffet will be served during the evening. Also, available will be cruises around Newport Beach and time to visit the Balboa Boardwalk full of boutiques, gifts, shops, galleries and the "Fun Bone."

Buses will depart the Anaheim Hilton and Towers at 5:30 p.m. and should return around 11:00 p.m. Tickets for guests to attend this outing are \$60.00. Please check the Conference Preregistration Form for reservations.

Hardware Display

The thrust to achieve technology affordability is a major feature in the NASA, DOD and ARPA Programs. Presentations throughout the week will highlight research which emphasizes cost-effective design and manufacturing methods. To illustrate progress in this area, the manufacturers and researchers will feature several displays including large components of composite wing, fuselage and/or elements for jet engine structure which show promising cost-effective design/manufacturing methods. These displays will be open to attendees during the Conference week.

Post-Conference Tour

On Friday morning, August 11, a no-cost tour will be offered for attendees and guests to view the C-17 Production line at **McDonnell Douglas** in Long Beach. **Only U. S. citizens will be allowed to participate in the tour.** Buses for the tour will leave the Anaheim Hilton and Towers at 8:30 a.m. and return around 12:00 noon. Please check the Conference Preregistration Form in the space provided to reserve your seat on the bus. Late conference registrations will be permitted to attend the tour only as space becomes available.

Companion Programs

Companion Coffee

A coffee and pastry function will be held for conference guests on Monday, August 7, 1995, from 2:00 p.m. until 4:00 p.m. The location of this function will be posted at the Conference Registration Desk. A representative from California Leisure Consultants will provide detailed information on special attractions in the local area and plans for group tours or other special outings can be made at this time. Please indicate how many guests will be attending this function on the Conference Preregistration Form.

Companion Tour 1 -Laguna Beach Art Tour

Come take an intimate look at the "Artist" community of Laguna Beach. Known for its lovely beaches, incredible views, wonderful shopping and restaurants, Laguna is also a haven for the most talented artist in the country. The day will begin with a guided "Art Walk" tour, visiting the Artist Colony and then to Sally Hiss's Boutique, who is known for her famous art work of "commercial " greeting cards and posters. Then we will continue down to the world famous "Whale" art creator shop, called Wyland Gallery & Gift Shop. Finally we will go to the Las Brisas restaurant. Perched atop the Laguna Cliffs is a beautiful and enchanting restaurant called Las Brisas. We will enjoy a private luncheon and a fabulous view!

Arrangements have been made for a tour on Tuesday, August 8, 1995. Interested conference attendees and guests will leave the Anaheim Hilton and Towers at 10:00 a.m. by deluxe Mini-coach and return around 4:00 p.m. Tickets to participate in this tour are \$45.00 each and may be purchased at the Conference Registration Desk, but please make the total number of reservations on the Conference Preregistration Form. **Note: Lunch included.**

Companion Tour 2 - Mission Incredible

Discover the enchantment of the oldest community in Orange County, Mission San Juan Capistrano, a living treasure house for a glorious chapter in early California history. Perhaps most known for its "return of the swallows" each year, the Mission is also called the "Jewel of the Missions".

Arrangements have been made for a tour on Wednesday, August 9, 1995. Interested conference attendees and guests will leave the Anaheim Hilton and Towers at 10:00 a.m. by motor coach and return around 3:00 p.m. Tickets to participate in this tour are \$20.00 each and may be purchased at the Conference Registration Desk, but please make the total number of reservations on the Conference Preregistration Form. **Note: Lunch is not included.**

Companion Tour 3 - Lights...Camera...Los Angeles!

Picture the world's largest movie set - one that segues from a sparkling ocean to majestic mountains, and from Queen Anne-style cottage to a cathedral dome beneath a pyramid-topped tower. Picture Los Angeles! With its sunny climate, magnificent Pacific coastline, tranquil deserts and snow-capped mountains, Los Angeles is a cosmopolitan, international city. The ethnic diversity, customs, languages, and lifestyles that influence the city's character span the globe.

On Thursday, August 10, 1995, conference attendees and guests will leave the Anaheim Hilton and Towers at 9:00 a.m. by guided tour and return around 5:00 p.m. Tickets to participate in this tour are \$35.00 each and may be purchased at the Conference Registration Desk, but please make the total number of reservations on the Conference Preregistration Form. **Note: Lunch is not included.**

Important Telephone Numbers

Coordinator

James E. Gardner - (804) 864-6003

Defense Logistics Services Center - 1-800-352-3572

Reservations, Anaheim Hilton and Towers - (714) 750-4321

Session I Chairperson

H. Benson Dexter - (804) 864-3094

Session II Chairperson

Charles E. Harris - (804) 864-3492

Session III Chairperson

Mark J. Shuart - (804) 864-2934

Session IV Chairperson

Damodar R. Ambur - (804) 864-3174

Session V Chairperson

W. Thomas Freeman - (804) 864-2945

Session VI Chairperson

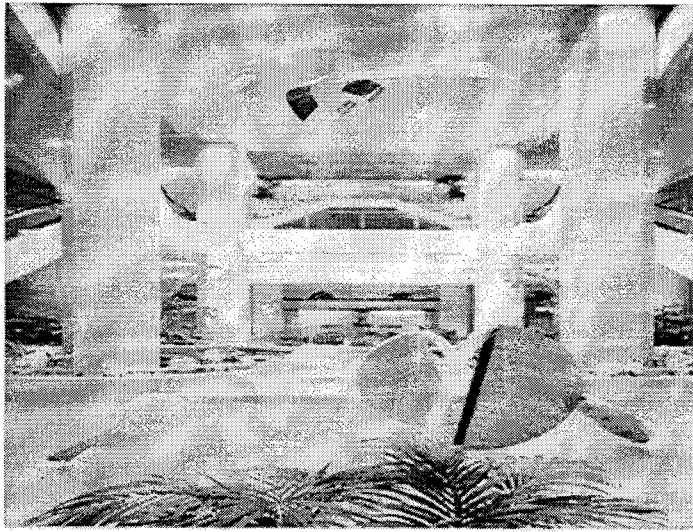
Diana Carlin - (513) 225-7277

Session VII Chairperson

F. Konrad Haake - (407) 796-6579

General Chairperson

Mark J. Shuart - (804) 864-2934

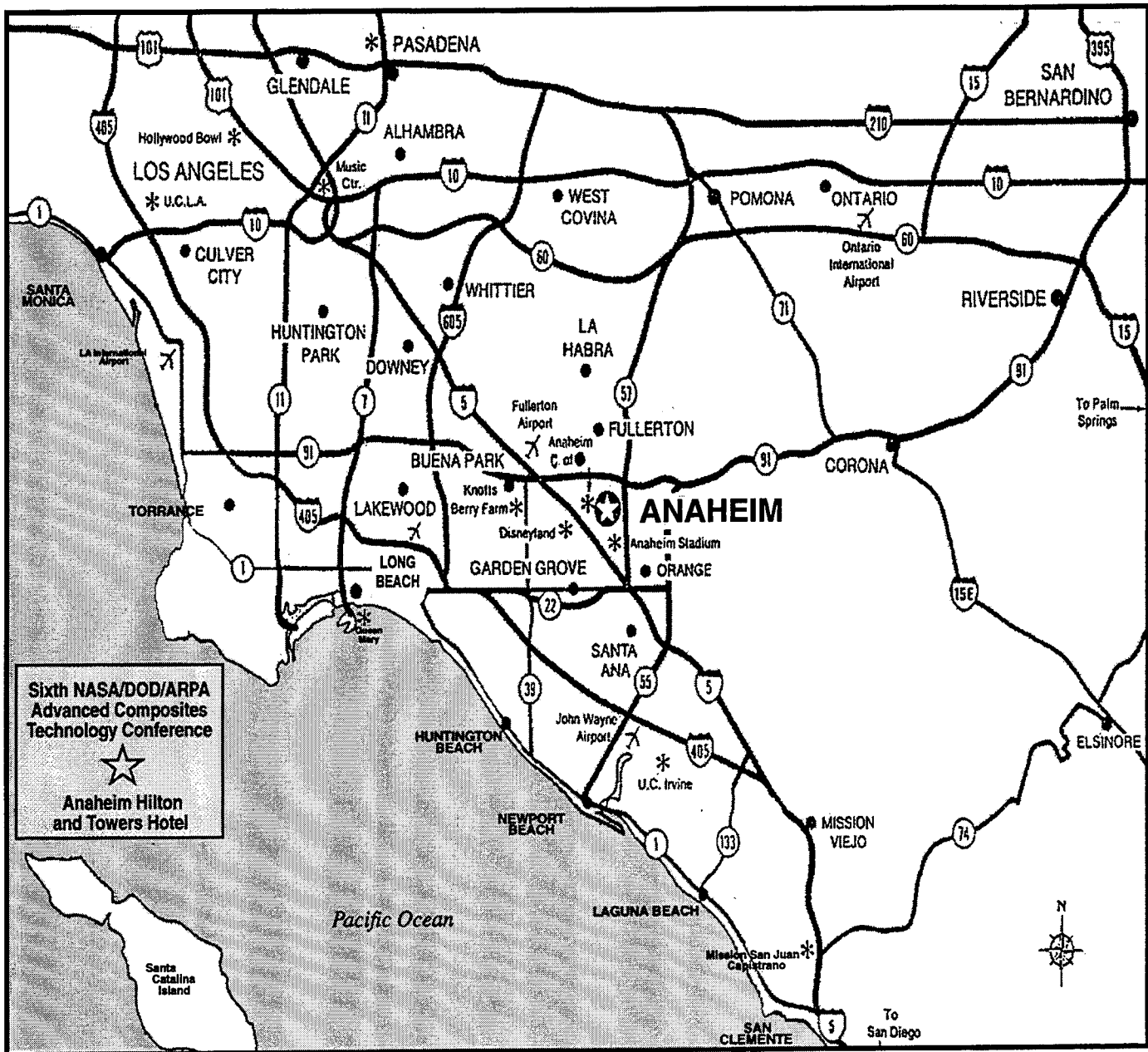


The Anaheim Hilton and Towers
Anaheim, CA 92802

Phone: (800) 445-8667 or (714) 750-4321
Fax: (714) 740-4252

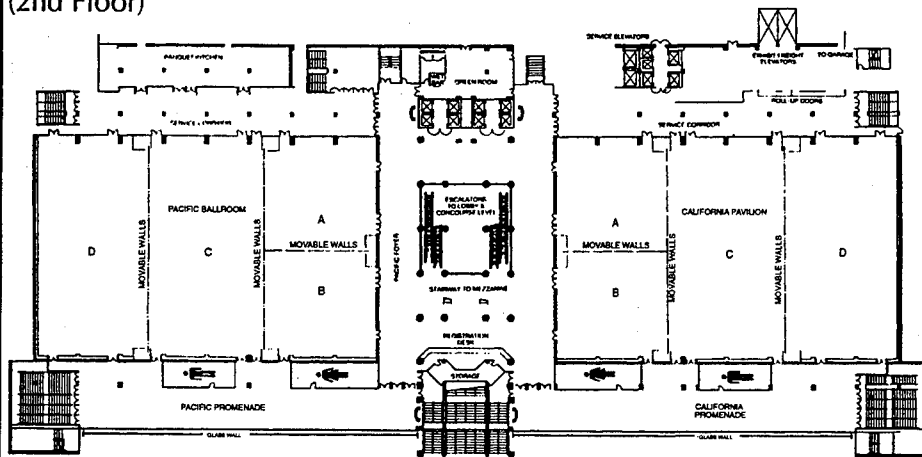


Anaheim Area Map

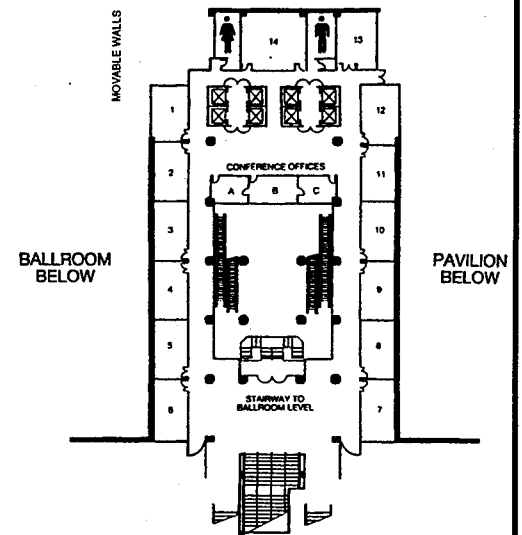


Anaheim Hilton and Towers Function Space

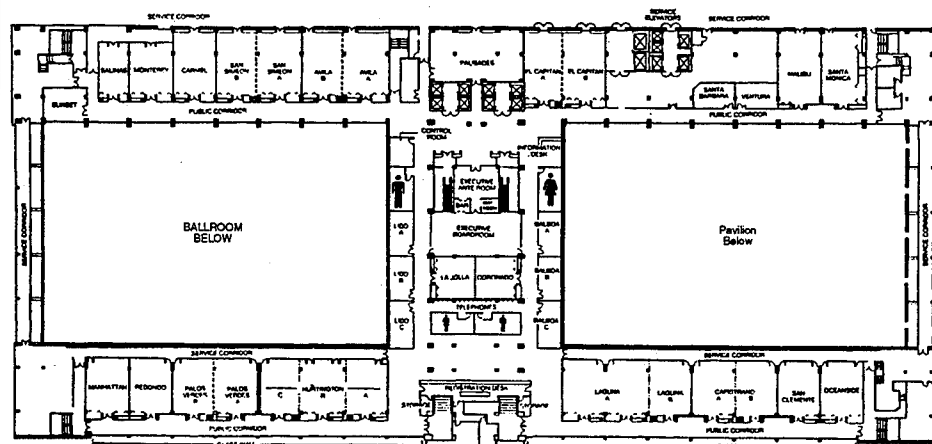
**Ballroom Level
(2nd Floor)**



**Mezzanine Level
(3rd Floor)**



**Concourse Level
(4th Floor)**



PROGRAM AT A GLANCE
SIXTH NASA/DOD/ARPA
ADVANCED COMPOSITES TECHNOLOGY
CONFERENCE

	MONDAY AUGUST 7	TUESDAY AUGUST 8	WEDNESDAY AUGUST 9	THURSDAY AUGUST 10	FRIDAY AUGUST 11
AM	<i>Registration - Grand Ballroom Foyer</i>	SESSION II <i>Wing Technology</i>	SESSION IV <i>Fuselage Analysis and Testing</i>	SESSION VI <i>DOD Design and Manufacturing of Low Cost Composites</i>	TOUR <i>C-17 Assembly Line at McDonnell Douglas Long Beach</i>
Mid-Day	Open Lunch	Luncheon	Luncheon	Adjourn	
PM	SESSION I <i>NASA Advanced Composites Technology Program</i>	SESSION III <i>Fuselage Design and Manufacturing</i>	SESSION IV <i>(cont.)</i> ----- SESSION V <i>Technology Display</i>	SESSION VII <i>ARPA Affordable Composites for Propulsion</i>	
Evening	Reception		California Dreaming		

PRELIMINARY AGENDA

Sixth NASA/DOD/ARPA Advanced Composites Technology Conference

Session 1 - NASA Advanced Composites Technology Program

Session Chairman: H. Benson Dexter

NASA Langley Research Center

- 1.1 **NASA Advanced Composites Technology Program** - M. Shuart
(NASA Langley Research Center)
- 1.2 **Advanced Composites Wing Technology for Future Transport Aircraft** - G. Janicki, D. Gill and A. Penton (McDonnell Douglas Aerospace)
- 1.3 **Advanced Technology Composite Fuselage** - L. Ilcewicz, T. Walker, J. Olson, P. Smith, B. Backman, and S. Metschan (Boeing Commercial Airplane Group)
- 1.4 **Development of Textiles for Aircraft Primary Structures - An Overview** - A. Jackson (Lockheed Aeronautical Systems Company)
- 1.5 **Mechanics Methodology for Textile Preform Composite Materials** - C. Harris and C. Poe, Jr. (NASA Langley Research Center)
- 1.6 **COINS - The COmposite INformation System Database** - T. Freeman (NASA Langley Research Center), S. Siddiqi, and R. Edlow (Analytical Sciences and Materials)

Session 2 - Wing Technology
Session Chairman: Dr. Charles E. Harris
NASA Langley Research Center

- 2.1 ***Detail Design Development of a Transport Aircraft Composite Wing*** - Arthur V. Hawley (McDonnell Douglas Aerospace)
- 2.2 ***A Proposed Method of Compliance to Damage Tolerance Requirements for Commercial Aircraft Composite Primary Wing Structure*** - Jason O. Sutton (McDonnell Douglas Aerospace)
- 2.3 ***Stitched/Resin Film Infusion Manufacturing Technology Development for Transport Aircraft Composite Wing Structures*** - R. Burgess, B. Grossheim, A. Markus, and K. Rohwer (McDonnell Douglas Aerospace)
- 2.4 ***Design of a Sewing Machine for Transport Aircraft Composite Wings*** - Patrick J. Thrash and J. L. Miller (McDonnell Douglas Aerospace)
- 2.5 ***Analysis and Testing of Stitched/RFI Subcomponents*** - Stephen C. Hinrichs, Y. Kropp (McDonnell Douglas Aerospace), and D. Jegley (NASA Langley Research Center)
- 2.6 ***Design, Analysis, Manufacture and Test of a Stitched, Resin Film Infused Main Landing Gear Attachment Article*** - Mike Voldman, P. Wyhowanec, K. Rohwer, and M. Aschenberg (McDonnell Douglas Aerospace)
- 2.7 ***Material Property Evaluation of Braided and Braided/Woven Wing Skin Blade Stiffeners*** - Keith W. Furrow (Lockheed Engineering and Sciences Company)
- 2.8 ***Structural Analysis and Test of a Stitched Composite Wing Box*** - Stephen C. Hinrichs (McDonnell Douglas Aerospace), D. Jegley, and J. Wang (NASA Langley Research Center)

Session 3 - Fuselage Design and Manufacturing
Session Chairman: Dr. Mark J. Shuart
NASA Langley Research Center

- 3.1 ***Fuselage Side Panel Development, Design Trade Studies*** - Ronald E. Barrie, R. L. Chu, M. Ott, P. Osborne (Lockheed Aeronautical Systems Company)
- 3.2 ***Structural Development of Composite Fuselage Cutouts: Window Belt and Door Reinforcements*** - D. R. Polland, T. Walker, P. Smith, K. Griess, B. Dopker, and S. Russell (Boeing Commercial Airplane Group)
- 3.3 ***Fabrication and Manufacturing Development of Composite Fuselage Windowbelt Structure*** - C. Harris, K. Willden, R. Matetich (Boeing Commercial Airplane Group), D. Skolnick (Lockheed Aeronautical Systems Company), and T. Harris (Boeing Commercial Airplane Group)
- 3.4 ***Manufacturing Development of Composite Fuselage Keel Panel*** - S. Stawski, K. Willden, R. Matetich, K. Nelson, T. Harris (Boeing Commercial Airplane Company)
- 3.5 ***Fabrication for Cost Effective Composite Fuselage Barrel Assembly*** - K. Willden, S. Stawski, C. Harris, R. Biornstad, and D. Skolnik (Boeing Commercial Airplane Company)
- 3.6 ***Design Integration of a Composite Aft Fuselage Barrel Section*** - C. T. Hanson, K. Griess, B. Flynn, G. Mabson, D. Polland, T. Walker, and B. Dopker (Boeing Commercial Airplane Group)
- 3.7 ***Damage Tolerance of Composite Fuselage Structure*** - T. Walker, B. Dopker, L. Ilcewicz, D. Scholz, D. Murphy, B. Flynn, J. Bodine (Boeing Commercial Airplane Group), and C. Poe, Jr. (NASA Langley Research Center)
- 3.8 ***Repair Developments for Sandwich Fuselage Structure*** - B. W. Flynn, K. Griess, B. Dopker, C. Harris, K. Nelson, M. Evens, J. Epperson (Boeing Commercial Airplane Group), and D. McGowan (NASA Langley Research Center)

Session 4 - Fuselage Analysis and Testing
Session Chairman: Dr. Damodar R. Ambur
NASA Langley Research Center

- 4.1 ***Cost Optimization Software for Transport Aircraft Design Evaluation*** - G. E. Mabson, H. Fredrikson, D. Graesser, S. Metschan, M. Proctor, D. Tervo, M. Tuttle, Z. Zabinsky, and T. Gutowski (Boeing Commercial Airplane Group)
- 4.2 ***Composite Structural Analyses Supporting Affordable Manufacturing and Maintenance*** - D. Murphy, B. Dopker, L. Ilcewicz, R. Biornstad (Boeing Commercial Airplane Group), and D. McGowan (NASA Langley Research Center)
- 4.3 ***Global/Local Analysis of Internal Load Paths in Support of Composite Fuselage*** - D. J. Carbery, S. Finn, D. Murphy, B. Dopker, G. Mabson, and M. Hutchinson (Boeing Commercial Airplane Group)
- 4.4 ***Compression Response of a Sandwich Fuselage Keel Panel With and Without Impact Damage*** - David M. McGowan and D. Ambur (NASA Langley Research Center)
- 4.5 ***Evaluation of Damaged and Undamaged Fuselage Panel Responses Subjected to Internal Pressure and Axial Tension*** - Marshall Rouse, D. Ambur, and J. Wang (NASA Langley Research Center)
- 4.6 ***Residual Strength Prediction of Fuselage Panel with Discrete Source Damage*** - John T. Wang, C. Poe, and D. Ambur (NASA Langley Research Center)
- 4.7 ***Optimal Design of Composite Fuselage Frames for Improved Crashworthiness*** - Marshall B. Woodson, E. Johnson, R. Haftka (Virginia Polytechnic Institute and State University), and H. Carden (NASA Langley Research Center)
- 4.8 ***Recent Advances in Resin Transfer Molding of Textile Preforms*** - J. G. Shukla, R. Chu, D. Skolnik, and S. Wu (Lockheed Aeronautical Systems Company)

Session 5 - Technology Display
Session Chairman: W. Thomas Freeman
NASA Langley Research Center

Exhibition Area for technology displays to be available. Contact W. T. Freeman for additional information.

Session 6 - DOD Design and Manufacturing of Low Cost Composites (DMLCC)

Session Chairman: Diana Carlin

Wright-Patterson Air Force Base

- 6.1 ***DMLCC, Engine*** - Srinu Gowda (GE Aircraft Engines)
- 6.2 ***DMLCC, Wing*** - Gary Renieri (McDonnell Douglas Aerospace)
- 6.3 ***DMLCC, Bonded Wing*** - Kenneth Nunn, Kevin Stump, Robert Dompka (Bell Helicopter)
- 6.4 ***DMLCC, Fuselage*** - Jess Jessup (Boeing Defense & Space Group, Military Airplanes Division)

Session 7 - ARPA Affordable Composites for Propulsion (ACP)

Session Chairman: F. Konrad Haake

United Technologies - Pratt & Whitney

- 7.1 ***Affordable Composites for Propulsion - Program Overview*** - R. Holman (Pratt & Whitney)
- 7.2 ***An Application of RTM in a Turbofan Engine Fan Exit Case*** - L. Gintert and S. Hayse (Dow-United Technologies Composite Products, Inc.)
- 7.3 ***Evaluation of Polymer Matrix Composites for Fan Containment*** - J. Beals (United Technologies Research Center), C. Musson (Pratt & Whitney), B. Scott, and J. Hanks (DuPont Composites)
- 7.4 ***Improved Damage Resistant and Repairable Composites for Commercial Nacelle Applications*** - C. Musson (Pratt & Whitney), K. Jordan, D. Reynolds (Northrop-Grumman), and C. Grant (Alliant Systems)
- 7.5 ***Design of a Durable Polymer Fan Exit Frame*** - G. Griesheim, D. Welch (Pratt & Whitney), R. Reavely, and S. Hayse (Dow-United Technologies Composite Products, Inc.)
- 7.6 ***Technology Developments in Support of the ACP Program*** - K. Kedward (University of California), J. Gillespie, Jr. (University of Delaware), O. Ochoa (Texas A&M University), and S. Tsai (Stanford University)
- 7.7 ***Guiding the Way to Affordable Product/Process Development, the ACP Team Approach to Affordability Assessment*** - C. Webster (Pratt & Whitney)

Anaheim Hilton and Towers Reservation Form

Sixth NASA/DOD/ARPA Advanced Composites Technology Conference

August 7—11, 1995

DEADLINE: JULY 7, 1995

Name : _____
Organization : _____
Phone : Day (____) _____ Evening (____) _____
Address : _____
City : _____ State: (____) Zip: _____

Rates
(Single/Double)
U.S. Government \$99 (Gov. I.D. Req'd.)
Corporate \$99 + 13% Tax
Note: Rates are valid two days before and two days after meeting, subject to availability. If a room is not available at the rate requested, a reservation will be made at the next available rate.

Arrival: _____
DAY DATE
Departure: _____
DAY DATE
Number of Rooms Required: _____
Number of People in Room: _____
Type of Bedding Requested: _____
Smoking: _____
Non-Smoking: _____

IMPORTANT NOTES

- Reservations requests must be received in our Reservation Office by July 7, 1995. Reservations received after this date are subject to availability.
- There is an additional \$20.00 charge for a third person occupying the same room. There is no charge for children under 18 years old occupying the same room with parents.
- Reservations must be accompanied by first night's deposit. We do accept personal checks.
- If you prefer, a credit card number may be used to confirm your reservation.

- American Express
- Diner's Club
- MasterCard
- Enroute

- Carte Blanche
- Discover
- VISA
- JVC

Credit Card Number _____
Expiration Date _____
Your Signature _____
Date _____

- Deposit is refundable provided cancellation is received 48 hours prior to arrival.
- Check-in time 3:00 p.m.
Check-out time 12:00 noon
- If you have any questions or if we may be of service prior to or during your stay at the Anaheim Hilton and Towers, please feel free to call on us at 714-750-4321. We look forward to having you as a guest.

Mail or
FAX To:

Anaheim Hilton and Towers
777 Convention Way
Anaheim, CA 92802-3497
FAX (714) 740-4252

DOD Security Clearance Form

Sixth NASA/DOD/ARPA
Advanced Composites Technology Conference
August 7—11, 1995
Anaheim Hilton and Towers, Anaheim, CA

I N S T R U C T I O N S

All non-government participants must submit this form in order to receive clearance to attend the DOD session. If more than one person from the company or division is attending the conference, all may be placed on the same form. This form must be typed and signed by a corporate security officer. The company is responsible for verification of all information contained herein. Misrepresentation of security information is punishable by federal law.

Company Name/Division : _____

Address : _____

Company's Militarily Critical Technical Data Agreement

(DD Form 2345) Registration Number : _____

Employee Name : _____
Last First M.I.

Employee Name : _____
Last First M.I.

Employee Name : _____
Last First M.I.

Employee Name : _____
Last First M.I.

I hereby certify that the individuals indicated above are currently employed by the company indicated above and are U.S. citizens or registered aliens. I understand that misrepresentation of information for the purposes of deceiving security officials may jeopardize national security and is punishable by federal law.

Typed Name of Certifying Official and Date :

_____ Last First M.I. Date

Title of Certifying Official : _____

Signature of Certifying Official : _____

Please return form by 7/3/95 to: Mr. James E. Gardner
Mail Stop 118
NASA Langley Research Center
Hampton, VA 23681-0001

Or FAX Form To: (804) 864-8088

Registered Alien's Request for Waiver to Attend FEDD Conference/Receive FEDD Documents

Sixth NASA/DOD/ARPA
Advanced Composites Technology Conference
August 7—11, 1995
Anaheim Hilton and Towers, Anaheim, CA

DEADLINE: June 19, 1995

I am a citizen of _____ (country), a registered alien in the United States (Registration No. _____), and have been a resident of the United States since _____ (year). I am employed by _____ (company name) and request a waiver to represent them at the FEDD conference listed above. I understand the FEDD policy and hereby affirm that I will not transmit or discuss any information gained from attending the conference or having access to FEDD-restricted documents with any foreign nationals or representatives of foreign companies.

_____	_____	_____
Print Name of Registered Alien	Date	Signature of Alien

_____	_____	_____
Print Name of Supervisor, Company, Address, Telephone No. (Must Be United States Citizen)	Date	Signature of Supervisor

_____	_____	_____
LaRC FEDD Control Officer	Date	Signature

Please return form by 6/19/95 to: Mr. James E. Gardner
Mail Stop 118
NASA Langley Research Center
Hampton, VA 23681-0001

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Preregistration Form

**Sixth NASA/DOD/ARPA
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August 7—11, 1995
Anaheim Hilton and Towers, Anaheim, CA

Required Information

Name : _____
 Position Title : _____
 Phone : () _____ Fax : () _____
 Business Mailing Address : _____

 City : _____ State () Zip: _____ - _____
 Preferred Badge Name (e.g. a nickname) _____

Attendee Reservations:

	Amount
I will <input type="checkbox"/> I will not <input type="checkbox"/> attend the Conference Reception (Aug. 7)	_____
I will <input type="checkbox"/> I will not <input type="checkbox"/> attend the Tuesday Luncheon (Aug. 8)	
I will <input type="checkbox"/> I will not <input type="checkbox"/> attend the Wednesday Luncheon (Aug. 8)	
I will <input type="checkbox"/> I will not <input type="checkbox"/> attend the Thursday Luncheon (Aug. 9)	
I will <input type="checkbox"/> I will not <input type="checkbox"/> attend the DOD Restricted Session (Aug. 10)*	
I will <input type="checkbox"/> I will not <input type="checkbox"/> attend the "California Dreaming" (Aug. 9)	
I will <input type="checkbox"/> I will not <input type="checkbox"/> attend the post-conference	
Conference Registration Fee - \$250	

Guest Reservations : DO NOT INCLUDE ATTENDEE

Function	Number of Guests	Cost (\$)	
Companion Coffee (Aug. 7)	_____	No Charge	
Conference Reception (Aug.7)	_____	\$25 Each	_____
Luncheon (Aug. 8)	_____	\$20 Each	_____
Luncheon (Aug. 9)	_____	\$20 Each	_____
Luncheon (Aug. 10)	_____	\$20 Each	_____
California Dreaming (Aug. 9)	_____	\$60 Each	_____
Post-conference Tour (Aug.11)	_____	No Charge	
Companion Tours: Laguna Art Tour (Aug. 8)	_____	\$45 Each	_____
Mission Incredible (Aug. 9)	_____	\$20 Each	_____
Lights...Camera...Los Angeles (Aug. 10)	_____	\$35 Each	_____

* To attend the DOD session, the Security Clearance Form must be completed and returned by July 3, 1995 Total \$ Enclosed : _____

DEADLINE: July 3, 1995

Please return form to: **Mr. James E. Gardner**
 Mail Stop 118
 NASA Langley Research Center
 Hampton, VA 23681-0001

Or FAX Form To: (804) 864-8088

For additional information, contact James E. Gardner at (804) 864-6003

All checks should be made payable to:
NASA Conference Center