

Space Congress Programs

5-1-1998

1998 Thirty-Fifth Space Congress Preliminary Program

Canaveral Council of Technical Societies

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Thirty-Fifth Space Congress
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Cape Canaveral, FL 32920-0245



PRELIMINARY PROGRAM



Horizons Unlimited

**Cocoa Beach, Florida
April 28 - May 1, 1998**

Chairman's Message



Every Space Congress has made its unique presence felt along the Space Coast. This year will be no different when we celebrate the 35th installment of the oldest forum of its kind and the 40th anniversary of NASA, the agency that made it all possible.

Our theme this year, "**Horizons Unlimited**", is extremely appropriate when we consider the extraordinary scientific achievements reached during the last eighteen months and the imminent launch of the first elements of the International Space Station. We are truly at the beginning of a new era of space exploration, exploitation and discovery, with our horizons limited only by our imaginations.

Not since American astronauts landed on the moon 29 years ago, has the world been treated firsthand to the wonders of space exploration as it was on July 4, 1997. Around the globe people watched their televisions and were enthralled as a gutsy piece of manmade machinery and electronics landed on Mars and almost instantaneously shot back images to Earth. As if that wasn't enough, millions of people monitored the Rover's whereabouts, on-line, at web sites, created by commercial ventures as well as NASA's Jet Propulsion Lab scientists. These achievements were followed by Goddard Space Flight Center's Global Surveyor that will orbit the Red Planet and map its surface for the next two years. Some of those resourceful, brilliant scientists will be here to relate their experiences firsthand to Congress participants.

While there has been some debate about whether we should continue to share our knowledge and our astronauts with the Russians and their Mir station, our astronauts and their cosmonauts have used their resourcefulness and ingenuity to keep the aging station operational. No one accepts equipment malfunctions as "nominal" operations but the lessons we have learned on Mir are vital to a successful International Space Station project and will be instrumental to our future journeys throughout the solar system. Astronauts, and perhaps cosmonauts, will be here to discuss their experiences and why the U.S.-Russian partnership is essential.

In addition, there will be panels and paper sessions addressing the growing demand for the commercial use of unmanned vehicles and the sophisticated constellations of communications satellites. There will also be discussions about the future of reusable launch vehicles, the trends in military payloads and launch vehicles, and the benefits education and our day-to-day lives receive from the various space programs. As in the past, we will continue to have the popular exhibits hall, science fair and Meet the Astronauts panel.

The **35th Space Congress** is sponsored by the Canaveral Council of Technical Societies (CCTS) and supported by the National Aeronautics and Space Administration (NASA) and the Department of Defense (DoD). In addition, local citizens and aerospace contractors are involved in planning and organizing this conference.

The Space Congress committee and I welcome you the scientists, engineers, aerospace and defense industry experts and the space enthusiasts, whose achievements and support keep expanding the envelope of our "**Horizons Unlimited.**"

A handwritten signature in black ink that reads "Bruce Melnick". The signature is fluid and cursive, written over a horizontal line.

Bruce Melnick
General Chairman
35th Space Congress

Registration

Headquarters for the **Thirty-Fifth Space Congress** is the DoubleTree Hotel of Cocoa Beach, Sky Lab Room. There you may pick up your registration packages and other Space Congress materials including copies of the Proceedings, tickets for Panel/Paper sessions, exhibit reception, luncheons and the banquet. Space Congress memorabilia and the various tickets are also available at the registration satellite desk in the hotel lobby. Registration will be open from 12:00 - 5:00 p.m. on Monday April 27; 7:00 a.m. - 5:00 p.m. from Tuesday through Thursday and 7:00 a.m. - 12:00 on Friday. Fill out the form on the reverse side of this brochure to pre-register by mail, FAX or E-Mail. Your registration will be confirmed by return mail. Register early to assure banquet tickets. Requests for refunds will not be honored after April 13, 1998. **ALL PANEL AND PAPER SESSIONS WILL BE HELD AT THE DOUBLETREE HOTEL OF COCOA BEACH. THE BANQUET WILL BE HELD AT THE RADISSON AT THE PORT.**

Exhibits

Exhibits will include a Showcase Exhibit, computer graphics demonstrations and displays of the Space Shuttle, Shuttle Payloads, Space Station, Expendable Launch Vehicles, and other space related activities. The Exhibit Halls will be open to the public in the Cocoa Beach Hilton and the Comfort Inn & Suite Resort on the following schedules: Tuesday - 11:00 a.m. to 7:00 p.m.; Wednesday - 11:00 a.m. to 5:00 p.m.; and Thursday - 9:00 a.m. to 3:00 p.m. Space Congress memorabilia is available for purchase at the exhibit areas. Admission tickets are available at the Registration Desk for the Wednesday Exhibit Reception to be held from 6:00 - 8:00 p.m.

Youth Science Fair

Regional Youth Science Fair displays and demonstrations will be open to the public Tuesday through Thursday, in the Dolphin Room at the Holiday Inn. Exhibits will be judged and awards presented on Thursday evening, April 30, immediately preceding the "Meet the Astronauts" panel session.

Student Discount

Students may attend panel or paper sessions at no charge. Students must, however, check in at any Registration Desk to pick up free admission tickets with the presentation of any student ID.

Sponsor

The **Thirty-Fifth Space Congress** is sponsored by the Canaveral Council of Technical Societies (CCTS). The council is composed of the Cape Canaveral area affiliates of 30 national, technical, and professional societies and an advisory group. Included in the advisory group are Brevard Community College, Embry-Riddle Aeronautical University, Florida Tech, the Florida Solar Energy Center, and The University of Central Florida. A CCTS Information Desk will be located in the DoubleTree Hotel of Cocoa Beach adjacent to the Main Lobby. Additional information about CCTS is available at <http://www.spacecoast.net> under organizations or space congress.

CCTS Member Societies:

AACE International
Air Force Association (Cape Canaveral Chapter)
American Institute of Aeronautics & Astronautics
American Institute of Chemical Engineers
American Meteorological Society
American Society of Civil Engineers
American Society of Heating, Refrig. & A/C Engineers

American Society for Industrial Security
 American Society of Mechanical Engineers
 American Society for Quality
 American Society of Safety Engineers
 American Society for Training and Development
 Armed Forces Communications and Electronics Association
 Florida Engineering Society
 Human Factors and Ergonomics Society
 Institute of Electrical & Electronic Engineers (Melbourne and
 Canaveral Sections)
 International Council On Systems Engineering
 Missile, Space & Range Pioneers, Inc.
 NASA Alumni League
 National Contract Management Association
 National Space Club-Florida Committee
 Society for Technical Communication
 Society of American Military Engineers
 Society of Logistics Engineers
 Society of Manufacturing Engineers
 Society of Women Engineers
 Associate Members:
 Association for Quality and Participation
 National Management Association-Florida Space Coast Council
 USAF Space & Missile Museum Foundation

Pioneers' Banquet

The Missile, Space and Range Pioneers' cocktail party and banquet at the Patrick Air Force Base Officers' Club will commence at 6:30 p.m. on Friday evening, May 1, following the **Thirty-Fifth Space Congress**. The Pioneers is a non-profit organization founded for the purpose of furthering interest in our nation's space programs and providing an opportunity for people associated with missile, space and range activities to meet socially and renew acquaintances. A Pioneers Information and Memorabilia Desk will be located in the DoubleTree Hotel of Cocoa Beach adjacent to the Main Lobby. For information write: Pioneers, P.O. Box 5227, Patrick Air Force Base, FL 32925-1227.

Parking

Limited parking is available at the DoubleTree Hotel of Cocoa Beach, where the opening ceremony and Paper and Panel Sessions will be held. Arrangements have been made to use the Cape Royal Building, Holiday Inn and Hilton Hotel parking lots. Buses will make regular runs to all Space Congress facilities.

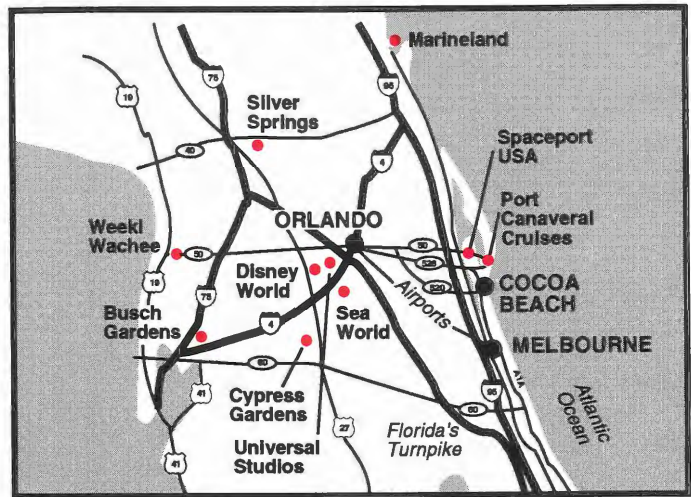
Airlines

Major airlines serving the Cocoa Beach area through the **Melbourne International Airport** include Delta and ComAir. Major airlines serving the Cocoa Beach area through the **Orlando International Airport** include: American, British Airways, ComAir, Continental, Delta, Martin Air, Northwest, TWA, United, USAir, Air Jamaica, America West, American Trans Air, Iceland Air, Kiwi, LTU, Paradise Island, and Virgin Atlantic. Limousine and van services are available from both airports to Cocoa Beach.

Auto Rentals

Reservations and rentals can be made at Cocoa Beach or at the Melbourne and Orlando airports. Agencies include:

Hertz	Avis	National	
Budget	Dollar	General	Enterprise



Attraction Centers

Late April in Florida is a delightful time of year for the entire family. The weather is pleasant, the hardy find the Atlantic warm enough for swimming and tourist attractions are not yet crowded. **Cocoa Beach** offers a long stretch of swimming beach, surfing areas, and both deep-sea and surf fishing. Three and four-day cruises aboard the **SS Oceanic, Dolphin II, Disney Magic and Fantasy** can be enjoyed from Port Canaveral. Bus tours of the **Kennedy Space Center** and **Cape Canaveral Air Station** are available from **The KSC Visitor Center** where a free exhibit-filled space museum can be enjoyed by both children and adults.

Within one to two hours drive is a world of vacation fun at **Walt Disney World** in the **Magic Kingdom, Epcot Center, or Disney/MGM Studios - Universal Studios, Florida - Sea World**, one of America's finest marine attractions - the mystery and excitement of Africa in **Busch Gardens** - famed Glass Bottom boats at **Silver Springs** - or the beautiful gardens and daily water ski revue with lovely aquamaids at **Cypress Gardens**.

Space Congress Golf Tournament

Golfers will be able to enjoy a tournament at the Patrick AFB Course on Friday, May 1. The tournament will be a "scramble" format, as in the past. You may sign up with one partner or by yourself. The tournament committee will assign teams based on playing ability. Foursomes may sign up if they provide a combined total certifiable handicap of 55 or higher. Fill in your name and average score or handicap for 18 holes on the registration form, along with the same from your partner, and enclose \$40.00 for each person. A maximum of 144 players will be registered on a first come, first in basis. Lunch, refreshments on the course, green fees, carts, and trophies are included in the fee. Buffet lunch from 11:30 a.m., and shotgun start at 1:00 p.m. Maps are available at the Golf Registration Desk in the Skylab Room of the DoubleTree Hotel of Cocoa Beach. Registration name change will be permitted with notification up to April 29.

Information

Further questions regarding participation in the **Thirty-Fifth Space Congress** should be directed to: Thirty-Fifth Space Congress, P.O. Box 321333, Cocoa Beach, FL 32932. Telephone answering service for faster response: 407-868-1623, (Fax 407-783-5579), or via e-mail to CCTS@spacecoast.net. The CCTS website is located at: <http://www.Spacecoast.net/SpaceCongress/>

PROGRAM

TUESDAY, APRIL 28

KEYNOTE ADDRESS (8:00 a.m. to 8:30 a.m.)

DoubleTree Hotel of Cocoa Beach

Speaker: TBD

PANEL SESSION I (8:30 a.m. to 11:00 a.m.)

DoubleTree Hotel of Cocoa Beach

VISION OF SPACE STATION OPERATIONS AND UTILIZATION

Panel Chairman: Randy H. Brinkley
Manager Space Station Program Office
NASA Johnson Space Center

Where the program is today...and the reality of where we will be tomorrow.

LUNCHEON (11:30 a.m. to 1:00 p.m.)

Holiday Inn, Manatee Room

Speaker: TBD

PAPER SESSION I (2:00 p.m. to 5:00 p.m.)

A. SCIENTIFIC ENLIGHTENMENT

DoubleTree Hotel of Cocoa Beach

Session Chairman: Roy Tharpe, Manager, Launch Site Management Office, The Boeing Company

Lessons learned from commercial launch experience with launch and space systems.

B. SPACE STATION/MIR REPORT

DoubleTree Hotel of Cocoa Beach

Session Chairman: Bill Bates, Chief of Staff ISSA, Johnson Space Center

A look at Space Station/Mir Program—present and future.

C. DOD ACHIEVEMENTS

DoubleTree Hotel of Cocoa Beach

Session Chairman: Lt. Col. Wayne Eleazor, Chief of Advanced Planning, Patrick Air Force Base

Lessons learned from military experience with launch and space systems.

D. LEARNING FROM EXPERIENCE

DoubleTree Hotel of Cocoa Beach

Session Chairman: William Lavinghousez, School Board of Brevard County

Approaches to education for improved science programs to prepare future space industry leaders.

Exhibits (11:00 a.m. - 7:00 p.m.)

Hilton, Comfort Inn

Science Fair

Holiday Inn

SPACE CONGRESS BANQUET

Radisson At The Port

Social Hour: 7:00 p.m.

Dinner: 8:00 p.m.

Program: 9:00 p.m.

Speaker: TBD

WEDNESDAY, APRIL 29

PANEL SESSION II (8:00 a.m. to 11:00 a.m.)

DoubleTree Hotel of Cocoa Beach

DOD—EXPLOITING SPACE FOR WORLD PEACE

Panel Chairman: General Howell M. Estes III
USAF CINCNOAD, US Space Command
Commander, Air Force Space Command

Distinguished leaders share their viewpoints on where we should be in the future of space.

LUNCHEON (11:30 a.m. to 1:00 p.m.)

Holiday Inn, Manatee Ballroom

Speaker: General Howell M. Estes III
USAF CINCNOAD, US Space Command
Commander, Air Force Space Command

PAPER SESSION II (2:00 p.m. to 5:00 p.m.)

A. CURRENT AND FUTURE LAUNCH CAPABILITIES

DoubleTree Hotel of Cocoa Beach

Session Chairman: Jean-Michel Desobeau, Director of Engineering, Arianespace, Inc.

A look at the utilization of commercial launch vehicles and facilities—present and future.

B. NASA—ASSESSING PROGRESS

DoubleTree Hotel of Cocoa Beach

Session Chairman: Frank Cepollina, Project Manager for Hubble Space Telescope, Goddard Space Flight Center

A perspective on previous and existing programs and their developmental gains for the benefit of mankind.

C. FUTURE ENDEAVORS FOR MILITARY SPACE

DoubleTree Hotel of Cocoa Beach

Session Chairman: Major Scott Swansen, Director of Launch Systems Acquisition and Operations

What are the new developments and trends in current and future military payloads and launch vehicles.

D. NEW HORIZONS IN EDUCATION
DoubleTree Hotel of Cocoa Beach

Session Chairman: Gregg Buckingham, University Programs Manager, Kennedy Space Center

Building a space future through all levels of our education system.

Exhibits (11:00 a.m. - 5:00 p.m.)

Hilton, Comfort Inn

Science Fair

Holiday Inn

EXHIBIT RECEPTION (6:00 p.m. to 8:00 p.m.)

Cocoa Beach Hilton, and Comfort Inn & Suite Resort
Exhibit Halls, Cocoa Beach (Ticket Required)

THURSDAY, April 30

PANEL SESSION III (8:00 a.m. to 11:00 a.m.)

DoubleTree Hotel of Cocoa Beach
TO THE MOON AND MARS

Panel Chairman: Dr. Michael D. Griffin
Executive Vice President
Orbital Sciences Corporation

What We Have Learned in Space...Recent Discoveries and Where They are Taking Us.

PAPER SESSION III (1:00 p.m. to 4:00 p.m.)

A. SPINOFFS FROM SPACE

DoubleTree Hotel of Cocoa Beach

Session Chairman: Dr. Robert Norwood, Office of Chief Technologist, NASA Headquarters

Spinoff achievements and knowledge gained from recent discoveries.

B. TECHNOLOGY DEVELOPMENT AND UTILIZATION IN SPACE

DoubleTree Hotel of Cocoa Beach

Session Chairman: Tony Spear, Project Manager, MARS Pathfinder, Jet Propulsion Laboratory

Successful utilization of space technology for public or commercial use.

C. SPACE TECHNOLOGY—DEVELOPMENTS FROM THE MILITARY

DoubleTree Hotel of Cocoa Beach

Session Chairman: James C. Hobin, General Manager, Launch Base Support Project, Johnson Controls, Inc.

Advancements from military space activities and their applicability to non-traditional uses.

D. SPACE BENEFITS FOR FUTURE GENERATIONS
DoubleTree Hotel of Cocoa Beach

Session Chairman: Phil Rose, Instructional Services Division, School Board of Brevard County

A look at space benefits from a student's perspective.

Exhibits (9:00 a.m. - 3:00 p.m.)

Hilton, Comfort Inn

Science Fair

Holiday Inn

SPACE CONGRESS RECEPTION

(6:00 p.m. to 8:00 p.m.)

Holiday Inn Observation Deck

PANEL SESSION IV (7:00 p.m. to 9:00 p.m.)

DoubleTree Hotel of Cocoa Beach
MEET THE ASTRONAUTS

Panel Chairman: Roy D. Bridges, Jr.
Center Director,
NASA, Kennedy Space Center, FL

FRIDAY, May 1

PANEL SESSION V (8:00 a.m. to 11:00 a.m.)

DoubleTree Hotel of Cocoa Beach
COMMERCIALIZATION

Panel Chairman: William Wisecarver
Director of Commercialization
Office of Space Flight, NASA

Corporate viewpoints on commercialization of space founded technology.

SPACE CONGRESS GOLF TOURNAMENT

11:30 a.m. to 5:30 p.m. (Approx.)

Patrick AFB Golf Course

(Buffet lunch from 11:30 a.m. Shotgun start at 1:00 p.m.)

MISSILE, SPACE & RANGE PIONEERS' ANNUAL BANQUET

6:30 p.m. to 10:00 p.m.

Officers' Club, Patrick AFB