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## Space Congress Programs

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4-24-1990

# 1990 Twenty-Seventh Space Congress Preliminary Program

Canaveral Council of Technical Societies

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## **TWENTY-SEVENTH SPACE CONGRESS**

COCOA BEACH, FLORIDA

APRIL 24, 25, 26, 27, 1990

# **PRELIMINARY PROGRAM**

# Chairman's Message

The "90's - Decade of Opportunity" has been chosen as the theme of our 27th annual Space Congress, and symbolizes the exciting programs in store for us this year. With the 80's culminating in our nation's successful return to space, this decade is signified by a renewed enthusiasm to further explore the universe.



The 27th Space Congress is sponsored by the Canaveral Council of Technical Societies (CCTS) and supported by the National Aeronautics and Space Administration and the Department of Defense (DoD). Extensive involvement of local aerospace contractors and the Space Coast communities has helped the Space Congress maintain its well-deserved reputation as the premier conference on space technology.

This year's panel sessions focus on the upcoming opportunities in space, and provide additional insight into DoD Space Programs and Operations, derivatives of the Space Transportation System, and Space Station activities. Technical paper sessions will provide detailed information on such topics as Space Education, Commercial Initiatives, Technology Payloads and Robotics.

Scheduled speakers include Congressman Bill Nelson who will open the four-day session, Admiral Richard H. Truly, NASA Administrator, who will speak at the Tuesday evening banquet and Mr. Sanford N. McDonnell, Chairman Emeritus of McDonnell Douglas, who will address the guests at the Tuesday luncheon. General Forrest McCartney, Kennedy Space Center Director, will introduce the Meet the Astronauts Panel.

On behalf of the committee, I invite you to join the 27th Space Congress in April. I look forward to seeing you here.



**E. D. Sargent**  
General Chairman  
27th Space Congress

## Registration

Headquarters for the **TWENTY-SEVENTH SPACE CONGRESS** is the Holiday Inn, Cocoa Beach. Please stop there, at the **REGISTRATION DESK** in the **DOLPHIN ROOM**, when you first arrive at Space Congress. Registration will open at noon on Monday, April 23, 1990 and at 7:00 a.m. on Tuesday through Friday and close at 5:00 p.m., except noon on Friday. Tickets, badges and pre-registrations are picked up there. Fill out form on the reverse side to pre-register by mail. Register early to assure Banquet tickets. Registration is also available for partial attendance at \$5.00 per session. Sessions will be held at the Holiday Inn and Howard Johnson Plaza-Hotel. **NOTE:** For Group Seating requests at the Banquet, Registration Forms must be submitted together. Every attempt will be made to accommodate these requests.

## 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 Hall will be open to the public in the Cocoa Beach Hilton on the following schedules: Tuesday - 11:00 a.m. to 7:00 p.m.; Wednesday - 11:00 a.m. to 8:00 p.m.; and Thursday - 8:00 a.m. to 3:00 p.m.

## Youth Science Fair

Regional Youth Science Fair Displays and demonstrations will be open to the public in the Dolphin Room at the Holiday Inn. Exhibits will be judged and awards presented on Thursday evening, April 26, immediately preceding the "Meet the Astronauts" panel session.

## Student Discount

Students may attend panel or paper sessions at a special rate of \$2.00 per session payable at the Registration Desk.

## Sponsor

The **TWENTY-SEVENTH SPACE CONGRESS** is sponsored by the Canaveral Council of Technical Societies (CCTS). The council is composed of the Cape Canaveral area affiliates of 28 national, technical, and professional societies and an advisory group. Included in the group are Brevard Community College, The Brevard Economic Development Council, Embry-Riddle Aeronautical University, Florida Institute of Technology, the Florida Solar Energy Center, and The University of Central Florida. **CCTS Member Societies:**

Air Force Association  
American Institute of Aeronautics & Astronautics  
American Institute of Architects  
American Institute of Industrial 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 Nondestructive Testing  
American Society for Quality Control  
American Society of Safety Engineers  
American Society for Training and Development

East Central Florida Space Business Roundtable  
 Florida Engineering Society  
 Institute of Electrical & Electronic Engineers  
 Instrument Society of America  
 Missile, Space & Range Pioneers, Inc.  
 National Contract Management Association  
 Society for the Advancement of Materials & Process Engineering  
 Society of Logistics Engineers  
 Society of Manufacturing Engineers  
 Society of Photo-Optical Instrumentation Engineers  
 Society for Technical Communication  
 Associate Members:  
 Association for Quality and Participation  
 National Management Association, Florida Space Coast Council

## Pioneers' Day

The Missile, Space and Range Pioneers' cocktail party and banquet at the Patrick Air Force Base Officers' Club will commence at 7:00 p.m. on Friday evening, April 27, following the **TWENTY-SEVENTH 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. For information write PIONEERS, P.O. Box 5227, Patrick Air Force Base, FL 32925.

## Parking

Limited parking is available at the Howard Johnson Plaza-Hotel, where the opening ceremony and several Paper Sessions 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 **Orlando International Airport** include: American, British Airways, Continental, Delta, Eastern, Icelandic Air, KLM, Midway, Northwest, Pan Am, TWA, United, and USAir. Major airlines serving the **Melbourne Airport** include: American, Continental, Delta, Eastern, and USAir. Limousine and van services are available from both airports to Cocoa Beach.

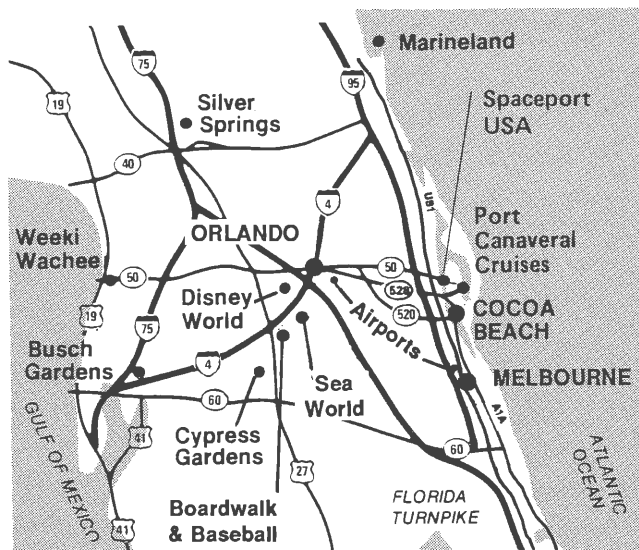
## Auto Rentals

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

AMERICAN INTERNATIONAL	HERTZ
AVIS	NATIONAL
BUDGET	THRIFTY
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 shore fishing. **Sea Escape** one day cruises and three and four day cruises aboard the **SS Oceanic**, the **SS Atlantic**



or the **SS Majestic** can be enjoyed from Port Canaveral. Bus tours of the **Kennedy Space Center** and **Cape Canaveral Air Force Station** are available from the **Spaceport, USA** 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 - 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** - the beautiful gardens and daily water ski revue with lovely aquamaids at **Cypress Gardens** - rides and fun at **Boardwalk & Baseball**.

## Space Congress Golf Tournament

Golfers will be able to enjoy a tournament at the Patrick AFB Course on Friday, April 27.

The tournament will be a four player, select shot 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 \$25, each person. A maximum of 140 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. will allow completion in time for Pioneers' Banquet attendance. Maps are available at the Registration Desk.

Registration name change will be permitted with notification up to April 13. No refunds will be made after April 1.

## Information

Further questions regarding participation in the **TWENTY-SEVENTH SPACE CONGRESS** should be directed to Twenty-Seventh Space Congress, P.O. Box 321333, Cocoa Beach, FL 32932. Telephone answering service for faster response: 407-455-2295.

# PROGRAM

**TUESDAY, APRIL 24**

**KEYNOTE ADDRESS (8:30 a.m. to 9:00 a.m.)**

**Howard Johnson Plaza-Hotel,  
Challenger Main Ballroom**

Speaker: Congressman Bill Nelson  
Florida, Eleventh District

Member, Committee on Banking, Finance, and  
Urban Affairs,

Member, Committee on Science and Technology  
Chairman, Subcommittee on Space Science and  
Applications

**PANEL SESSION I (9:00 a.m. to 11:30 a.m.)**

**Howard Johnson Plaza-Hotel, Challenger Main Ballroom**

**SPACE OPPORTUNITIES FOR THE NEXT CENTURY**

Panel Chairman: Lt. Gen Donald L. Cromer, Commander,  
Space Systems Division, Los Angeles AFB, CA

A discussion of capability and technology being pursued for  
the 1990's and beyond.

**LUNCHEON (12:00 noon to 1:30 p.m.)**

**Holiday Inn, Manatee Room**

Speaker: Sanford N. McDonnell  
Chairman Emeritus  
McDonnell Douglas Corporation

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

**A. DOD RESEARCH AND DEVELOPMENT**

**Howard Johnson Plaza-Hotel,  
Atlantis/Discovery Rooms**

Session Chairman: Col. M. T. Runkle, GPS Program Director,  
Los Angeles AFB, CA

Meeting user needs for advanced technology applications  
through understanding of the environment and clear  
requirements definition.

**B. SCIENCE PAYLOADS**

**Howard Johnson Plaza-Hotel,  
Columbia/Enterprise Rooms**

Session Chairman: Mr. Joe Alexander, NASA Assistant  
Associate Administrator for Space Science and Applications  
(OSSA)

NASA planning for flight experiments in response to science  
discipline requirements through the 90's.

**C. SMALL MICROGRAVITY CARRIERS**

**Holiday Inn, Manatee Rooms A and B**

Session Chairman: Dr. Charles Lundquist, Director, Consortium  
for Materials Development In Space with Office at the Univer-  
sity of Alabama-Huntsville

Recent flight experience and planned near term flight proj-  
ects for small experiments that can achieve significant  
results with only 10 to 15 minutes of microgravity envi-  
ronment.

**SPACE CONGRESS BANQUET**

**Howard Johnson Plaza-Hotel, Challenger Main Ballroom**

Social Hour: 7:00 p.m.

Dinner: 8:00 p.m.

Program: 9:00 p.m.

Speaker: NASA Administrator, Vice Admiral  
Richard H. Truly, USN Retired

**WEDNESDAY, APRIL 25**

**PANEL SESSION II (8:30 a.m. to 11:30 a.m.)**

**Howard Johnson Plaza-Hotel, Challenger Main Ballroom**

**SPACE STATION**

Panel Chairman: Mr. Richard H. Kohrs, Director, Space  
Station Freedom, NASA Headquarters, Washington, D.C.

Space Station Freedom - The new opportunity for manned space  
flight in the 90's.

**LUNCHEON (12:00 noon to 1:30 p.m.)**

**Holiday Inn, Manatee Room**

Speaker: Barbara Morgan  
"Teacher in Space" Designate

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

**A. SPACE STATION**

**Howard Johnson Plaza-Hotel,  
Atlantis/Discovery Rooms**

Session Chairman: Mr. John Cox, Director, Program Utilization  
and Operations for the Space Station Program

Latest in U.S. and International Partner planning for the  
Space Station Freedom including current flight configuration,  
program schedules and milestones, assembly sequence  
overview, planned user accommodations and early experi-  
ments.

**B. TECHNOLOGY PAYLOADS**

**Howard Johnson Plaza-Hotel,  
Columbia/Enterprise Rooms**

Session Chairman: Mr. Jon Pyle, Project Manager, Flight Projects Division, Office of Aeronautics and Space Technology (OAST)

Discussion of the seven technology themes which are the OAST planning and project development focus of specific U.S. space technology needs.

### C. COMMERCIAL INITIATIVES

#### Holiday Inn, Manatee Rooms A and B

Session Chairman: Mr. Steve Morgan, Director of Space Industry Development, Herndon, VA

State and private commercial initiatives for a broad range of aerospace applications including supply and support infrastructure to current and planned space flight programs.

#### COCKTAIL PARTY (6:00 p.m. to 7:30 p.m.)

Cocoa Beach Hilton, Exhibit Hall

### THURSDAY, APRIL 26

#### PANEL SESSION III (8:30 a.m. to 11:30 a.m.)

Howard Johnson Plaza-Hotel, Challenger Main Ballroom

#### SPACE TRANSPORTATION SYSTEM AND DERIVATIVES

Panel Chairman: Robert L. Crippen, Acting Director Space Shuttle Program, NASA Headquarters Washington, D.C.

Current program status and follow-on activities

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

### A. NSTS AND DERIVATIVES

#### Howard Johnson Plaza-Hotel, Atlantis/Discovery Rooms

Session Chairman: Mr. James Madewell, Director, Advanced Programs, Lockheed Space Operations Company

Industry and government planning for heavy lift launch vehicles that take best advantage of current "off-the-shelf" Shuttle designs, technology and existing manufacturing capability.

### B. DOD OPERATIONS

#### Howard Johnson Plaza-Hotel, Columbia/Enterprise Rooms

Session Chairman: Col. James K. McDonough, Air Force Space Command, Peterson AFB, CO

This session will go into further detail of current DOD space operations planning.

### C. SPACE EDUCATION

#### Holiday Inn, Manatee Rooms A and B

Session Chairman: Dr. Norm Thagard, NASA Astronaut  
Survey of current university and public school education approaches to encourage entry into and excellence within aerospace careers.

#### SPACE CONGRESS RECEPTION (6:00 p.m. to 8:00 p.m.)

Holiday Inn Deck

#### PANEL SESSION IV (7:30 p.m. to 9:30 p.m.)

Howard Johnson Plaza-Hotel, Challenger Main Ballroom

#### MEET THE ASTRONAUTS

Panel Chairman: Lt. Gen. Forrest S. McCartney, USAF  
Retired, Center Director, NASA, Kennedy Space Center, FL

### FRIDAY, APRIL 27

#### PANEL SESSION V (8:30 a.m. to 11:30 a.m.)

Howard Johnson Plaza-Hotel, Challenger Main Ballroom

#### DEPARTMENT OF DEFENSE SPACE OPERATIONS: CAPABILITIES FOR THE WAR-FIGHTER

Panel Chairman: Lt. Gen. Donald J. Kutyna, Commander,  
Air Force Space Command, Peterson AFB, CO

A discussion of current DoD capabilities in space and requirements for the future capabilities needed by warfighting commanders.

#### SPACE CONGRESS GOLF TOURNAMENT

11:30 a.m. to 5:00 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

7:00 p.m. to 10:00 p.m.

Officers' Club, Patrick AFB

Held in conjunction with Space Congress.