

**National Aeronautics and Space Administration**

**International Space Station Advisory Committee**

**October 1, 2007  
NASA Headquarters  
Washington, DC**

**MEETING REPORT**



A handwritten signature in cursive script, appearing to read "Glen Asner", written over a horizontal line.

Glen R. Asner  
Executive Secretary

A handwritten signature in cursive script, appearing to read "Thomas P. Stafford", written over a horizontal line.

Thomas P. Stafford  
Chairman

# NASA INTERNATIONAL SPACE STATION ADVISORY COMMITTEE

**October 1, 2007**  
NASA Headquarters  
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## MEETING REPORT

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## NASA INTERNATIONAL SPACE STATION ADVISORY COMMITTEE

October 1, 2007  
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### MEETING REPORT

Dr. Glen Asner, Executive Secretary of the NASA International Space Station (ISS) Advisory Committee (AC), welcomed the participants and called roll. He explained that the Chairman, Lt. Gen. Thomas P. Stafford, USAF (Ret.), was unable to participate and asked Advisory Committee Member James Adamson to preside over the meeting.

Col. Adamson gave the following remarks:

*Good afternoon and thank you for participating in this open meeting of the NASA International Space Station Advisory Committee. To review all of the areas that were covered in this assessment, I'm going to read from the report of the Committee's recent fact-finding trip to Moscow where we met with the Russian Advisory Expert Council on the Expedition 16 mission.*

*As directed by our two Agencies, the NASA International Space Station Advisory Committee and the Russian Federal Space Agency Advisory Expert Council, which I will refer to from here on out as the Joint Commission, have reviewed the safety and operational readiness of the International Space Station (ISS), the flight readiness of the Expedition 16 and Visiting 13 Crew, and the Russian and U.S. flight control teams' preparedness to accomplish the Expedition 16 mission. Additionally, the Joint Commission reviewed preparations for the Expedition 15 and Visiting 13 Crews' landing and recovery from the landing site, and reviewed the readiness of Soyuz TMA-11 for launch and Soyuz TMA-10 for landing.*

*The Joint Commission finds that:*

- the Expedition 16 Crew and Visiting Crew 13 have successfully completed their training in full and show high confidence for successfully completing the flight;*
- based on the results of their medical examinations, the crew members are considered ready for their mission;*
- the Russian and U.S. flight control teams are prepared to support the Expedition 16 mission;*
- the ISS is safe and operationally ready to support the crew for the duration of their mission;*
- and, finally, all vehicle and operational reviews to date have indicated that all mission elements are ready to support the safe ascent of the Expedition 16 Crew and Visiting Crew 13 on Soyuz TMA-11, and the safe descent and landing of the Expedition 15 Crew and Visiting Crew 13 aboard Soyuz TMA-10.*

*The findings of this report resulted from meetings in Moscow, Russia, September 11-13, 2007, at TsNIIMash and the Gagarin Cosmonaut Training Center, where the Joint Commission received briefings on the following topics: Expedition 16 Flight Program; STS-118 Mission Results Summary; Analysis of Life Support System Operation; Analysis of ISS Terminal and Central Computer Status and Failures; Real-time Operation Management Team Readiness; Mission Control Center Readiness; Medical Operations and Environmental Monitoring; Expedition 16 EVA Plans; Soyuz TMA-11 Flight Readiness; Soyuz TMA-10 Landing Readiness; Update on 6-Person Crew for the ISS; Automated Transfer Vehicle Mission Status; Crew Training and Readiness for Launch, Landing, and EVA; Medical Aspects of Crew Training; Federal Aeronautical Navigational Service Readiness for Search and Rescue of Expedition 15 Crew and Visiting Crew 13*

*From these briefings, the Joint Commission agreed upon the following items:*

*Final processing of Soyuz TMA-11 will be completed at Baikonur in accordance with the approved plan. The launch of Soyuz TMA-11 is scheduled for October 10, 2007. The Joint Commission believes Soyuz TMA-11 will be ready for launch after final checkout at Baikonur. The Joint Commission also believes that Soyuz TMA-10 is ready to return the Expedition 15 Crew and Visiting Crew 13.*

*There are no medical constraints for the Expedition 16 Crew and Visiting 13 Crew and the ISS is environmentally safe to support crew health and efficiency for the duration of their mission.*

*The Joint Commission has concluded that the Expedition 16 Crew is experienced, well-trained, and ready for their mission. Split-crew training remains an area of interest for the Joint Commission. Split-crew training is a challenge in view of the approved ISS crew rotation plan, but the Joint Commission expresses its confidence in the demonstrated ability of U.S. and Russian training experts to work out the procedures and methods necessary to maintain a high level of crew proficiency.*

*The flight control teams and facilities for both Moscow and Houston are fully coordinated and ready to control and support the flight of Expedition 16.*

*The Increment 16 mission timeline is very intense due to the large number of operational activities such as the Progress, Shuttle, EVAs, etc. The Joint Commission recognizes the efforts of the Flight Planning experts, and the need to occasionally exceed work and rest guidelines. However, especially when deviating from Generic Ground Rules & Constraints, crew fatigue levels must be monitored, recognized and accommodated to ensure crew efficiency, health, and safety.*

*The Joint Commission has previously expressed concerns with ISS safety during ATV docking operations. Briefings to date have addressed familiarization with vehicle configuration, systems, and operational overview. Joint Integrated Simulations have not yet validated interoperability among the four control centers. Until additional briefings can be received and adequate Joint Integrated Simulations successfully accomplished, the Joint Commission is unable to provide you with an assessment of ATV docking operations to ISS.*

*The power failure of the Russian on-board computers in June 2007 could have required extreme emergency measures to prevent loss of the ISS. The failed unit has been removed and replaced, returned on STS-118 for analysis by Russian experts, and the computers are again functional.*

*That concludes the report.*

*Do any Advisory Committee members have any questions? There were no questions.*

*Are there any objections to the report? There were no objections.*

Col. Adamson continued his remarks. *Fine, then based on our fact-finding meetings, the full Advisory Committee and Joint Commission concur with the assessment outlined here today.*

*This concludes our assessment as of this date. In performing our assessment, the Joint Commission appreciates the full and open discussion of information presented by the subject matter experts. We will continue to follow the mission prior to the anticipated launch of the Expedition 16 Crew and Visiting Crew 13 scheduled to occur on October 10, 2007. If we should develop any concerns as we proceed toward launch, we will contact NASA and the committee members immediately.*

*My best wishes to the crew and thank you all again for the expertise you bring to our committee. I'll turn this over to the Executive Secretary, Glen Asner.*

Executive Secretary Glen Asner expressed his appreciation to the Committee for their hard work on this assessment and the meeting was adjourned at 1:15 p.m.

NASA International Space Station Advisory Committee

October 1, 2007  
NASA Headquarters  
Washington, DC

Committee Membership

Chairman

Lt. Gen. Thomas Stafford, USAF (Ret.)

Members

Col. James Adamson, U.S. Army (Ret.)  
Mr. Percy Baynes  
Dr. Kathy Clark  
Mr. Joseph Cuzzupoli  
Dr. Charles Daniel  
Dr. Michael Duncan  
Dr. Craig Fischer  
Col. Chris Hadfield, Canadian Air Force (Ret.)  
Mr. J. Milt Heflin  
Dr. Daniel Heimerdinger  
Maj. Gen. Ralph Jacobson, USAF (Ret.)  
Mr. Jim Lloyd  
Dr. Ronald Merrell  
Mr. David Mobley  
Dr. Shawn Rahmani

Technical Advisors

Maj. Gen. Joe Engle, USAF (Ret.)  
Maj. Bob Maiberger, U.S. Army (Ret.)

Executive Secretary

Dr. Glen Asner

Asst. Executive Secretary

Ms. Holly Stevens

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Meeting Attendees

Committee Members

Col. James Adamson – via teleconference  
Dr. Kathy Clark – via teleconference  
Mr. Joe Cuzzupoli – via teleconference  
Dr. Charles Daniel – via teleconference  
Dr. Michael Duncan – via teleconference  
Mr. Milt Heflin – via teleconference  
Dr. Dan Heimerdinger – via teleconference  
Maj. Gen. Ralph Jacobson – via teleconference  
Mr. Jim Lloyd  
Dr. Ronald Merrell – via teleconference

Stafford Advisory Committee Technical Advisors

Maj. Gen. Joe Engle – via teleconference  
Maj. Bob Maiberger – via teleconference

Advisory Committee Executive Secretary

Dr. Glen Asner

Advisory Committee Asst. Executive Secretary

Ms. Holly Stevens – via teleconference