

National Aeronautics and Space Administration

International Space Station Advisory Committee

**August 24, 2006
NASA Headquarters
Washington, DC**

EXPEDITION 14 OPEN MEETING REPORT



Todd F. McIntyre
Executive Secretary

Thomas P. Stafford
Chairman

NASA INTERNATIONAL SPACE STATION ADVISORY COMMITTEE

August 24, 2006
NASA Headquarters
Washington, DC

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MEETING REPORT

Mr. Todd McIntyre, Executive Secretary of the NASA International Space Station (ISS) Advisory Committee (AC), welcomed the participants, called roll and introduced Lt. Gen. Thomas P. Stafford, USAF (Ret.), Chairman of the NASA ISS Advisory Committee. General Stafford expressed his appreciation to the AC and explained that he would review the areas that were covered in the assessment and read the report from the Committee's recent fact-finding trips to Houston and Moscow where they met with the Russian Advisory Expert Council on the Expedition 14 mission:

As directed by our two Agencies, the NASA International Space Station Advisory Committee and the Federal Space Agency Advisory Expert Council Joint Commission, which I'll refer to as the Joint Commission, reviewed the safety and operational readiness of the International Space Station, the flight readiness of the Expedition 14 and Visiting 11 Crews, and the Russian and U.S. flight control teams' preparedness to accomplish the Expedition 14 mission. Additionally, the Joint Commission reviewed preparations for the Expedition 13 and Visiting 11 Crews' landing and recovery from the landing site, and reviewed the readiness of Soyuz TMA-9 for launch and Soyuz TMA-8 for landing.

The Joint Commission finds that:

- *the Expedition 14 Crew and Visiting Crew 11 have successfully completed their training in full and show high confidence for successful completion of their examinations.*
- *based on the results of their medical examinations, the crew members were considered ready for their mission.*
- *the Russian and U.S. flight control teams are prepared to support the Expedition 14 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 14 Crew and Visiting Crew 11 on Soyuz TMA-9, and the safe descent and landing of the Expedition 13 Crew and Visiting Crew 11 aboard Soyuz TMA-8.*

The findings of this report resulted from meetings in Houston, Texas, August 1-3, 2006, where the Joint Commission received briefings on: Space Shuttle Program Status, including future ISS flights; STS-121 Results; External Tank Status; ISS Overview; a review of recently-corrected hardware failures on ISS (including the Control Moment Gyro); Mission Control Center – Houston Readiness; and a U.S. Segment Training Overview.

In addition, due to the upcoming launch of the Automated Transfer Vehicle (ATV), the Joint Commission received an ATV Mission Overview briefing.

The Joint Commission also met and received briefings on the readiness of Expedition 14 in Moscow, Russia, on August 15-17, 2006, at TsNIIMash and the Gagarin Cosmonaut Training Center. The briefings in Moscow included the following topics: the Expedition 14 Flight Program; Russian Segment System Status, including Elektron; Mission Control Center-Moscow Readiness; Medical Operations and Environmental Monitoring; Expedition 14 EVA Plans; Soyuz TMA-8 Readiness; Soyuz TMA-9 Readiness; ATV Mission Status; Search and Rescue Forces Readiness; Crew Training; Crew Landing Readiness on Soyuz TMA-8; and a meeting with the Expedition 14 Crew, Visiting Crew 11, and the flight engineer of Expedition 12.

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

Final processing of Soyuz TMA-9 will be completed at Baikonur. The planned launch of Soyuz TMA-9 is scheduled for September 14, 2006. The Joint Commission believes Soyuz TMA-9 will be ready for launch after final checkout at Baikonur. The Joint Commission also believes that Soyuz TMA-8 is ready to return the Expedition 13 Crew and Visiting Crew 11.

There are no medical constraints for the Expedition 14 crew, and the ISS is environmentally safe and operationally ready to support crew health and efficiency for the duration of their mission.

The Joint Commission has concluded that the Expedition 14 Crew is 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, but the Joint Commission expresses its confidence in the 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 search and rescue responsibility and organizational structure have transferred from the Ministry of Defense to the Federal Air Navigation Administration. The Joint Commission has no concerns about this reorganization since full continuity of operations is retained, and the operational structure of the search and rescue service remains the same.

The flight control teams and facilities for both Moscow and Houston are fully coordinated and ready to control and support the flight of Expedition 14.

During the Joint Commission briefings on ATV, a number of test and certification questions were raised which suggested more in-depth briefings are needed from European Space Agency experts. The Joint Commission will pursue this additional information and report its findings to Dr. Griffin and Mr. Perminov regarding ISS safety during ATV operations.

Finally, the Joint Commission notes the remarkable work and results achieved in returning the Space Shuttle to flight, especially NASA's efforts to reduce the numbers and mass of debris shed from the External Tank.

That concludes the report.

Since the time of the report, the Visiting Crewmember has been ruled medically unfit to travel into space, and the backup Visiting Crewmember has been selected to be the replacement. In

informal discussions with the Expedition 14 crew, they expressed confidence in the abilities of the backup crewmember.

General Stafford asked if any of the Committee members had any questions. He then asked if there were any objections to the findings. As there were no objections, he continued by saying that based on the fact-finding meetings, the full Advisory Committee and Joint Commission concur with the assessment.

In summary, General Stafford concluded the meeting by saying:

This concludes our assessment as of this date. In performing our work, 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 14 Crew and Visiting Crew 11 scheduled to occur no earlier than September 14, 2006. If we should develop any concerns as we proceed toward launch, we will contact NASA and the committee members immediately.

He thanked the participants and expressed his appreciation to the AC members for the expertise they bring to the Committee's ISS assessments.

Executive Secretary Todd McIntyre also thanked the participants and adjourned the meeting at 1:16 p.m.

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Attachment A

ADVISORY COMMITTEE MEMBERSHIP

Chairman

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

Members

Col. James Adamson, U.S. Army (Ret.)
Mr. Percy Baynes
Dr. Kathy Clark
Mr. Benjamin Cosgrove
Mr. Joseph Cuzzupoli
Dr. Charles Daniel
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

Mr. Todd McIntyre

Asst. Executive Secretary

Ms. Holly Stevens

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Attachment B

MEETING ATTENDEES

Members

Col. Jim Adamson – via teleconference
Dr. Kathy Clark – via teleconference
Mr. Jim Lloyd
Dr. Ronald Merrell – via teleconference
Mr. Dave Mobley – via teleconference
Dr. Shawn Rahmani – via teleconference
Lt. Gen. Thomas Stafford – via teleconference

Technical Advisors

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

Executive Secretary

Mr. Todd McIntyre

Asst. Executive Secretary

Ms. Holly Stevens – via teleconference

NASA

Ms. Melissa Mathews, Public Affairs Office
Ms. Stacey Edgington, Space Operations Mission Directorate

Other

Mr. Rick Eiserman, Government Accountability Office
Ms. Yana Golburt, Government Accountability Office
Mr. Alan Ladwig, Northrop Grumman
Mr. Roger Crouch