

LOGISTICS MODULE

VEHICLE: Atlantis/OV-104

TARGET LAUNCH DATE: March 1, 2003

TARGET LANDING DATE: March 13, 2003

MISSION DURATION: 12 days

SHUTTLE CREW: Collins, Kelly, Noguchi, Robinson

ISS EXPEDITION CREW 7: Malenchenko, Kaleri, Lu

ORBITAL ALTITUDE AND INCLINATION: 122 nautical miles, 51.6 degrees

Shuttle Processing Note: Orbiter Atlantis was mated to the Orbiter Transporter System on Tuesday and was rolled over on Wednesday to be mated to its Solid Rocket Boosters and External Tank in preparation for a launch to the International Space Station on March 1.

MISSION STS-115 -- 18th ISS FLIGHT (12A) ? P3/P4 SOLAR ARRAYS

VEHICLE - Endeavour/OV-105

TARGET LAUNCH DATE: May 23, 2003

TARGET LANDING DATE: June 3, 2003

MISSION DURATION: 10 days

CREW: Jett, Ferguson, Tanner, Burbank, MacLean, Stefanyshyn-Piper

ORBITAL INSERTION ALTITUDE AND INCLINATION: 122 nautical miles/51.6 degrees

Shuttle Processing Note: Processing continues on schedule for the STS-115 launch to the International Space Station scheduled in May 2003. Installation of all three of Endeavour's Auxiliary Power Units is complete and the APU exhaust duct leak checks are in work. Technicians in the processing facility are preparing to remove the right-hand Orbiter Maneuvering System pod.

ORBITER MAJOR MODIFICATION PERIOD

VEHICLE: Discovery/OV-103

Shuttle Processing Note: The Orbiter Major Modification (OMM) period for Discovery continues with Avionics Bay 3A structures modifications, and Avionics Bay 1 and 2 integrated wiring modifications. Multi-Purpose Logistics Module dedicated heat exchanger and radiator isolation modifications are in work. Wire inspections and repairs are ongoing.

-- end --

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Subject: 1-27-03 Shuttle status
Date: Mon, 27 Jan 2003 10:35:59 -0500
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KENNEDY SPACE CENTER
SHUTTLE & PAYLOAD PROCESSING STATUS REPORT
Monday, Jan. 27, 2003 (10 a.m.)

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MISSION STS-107 -SPACEHAB/ FREESTAR MICROGRAVITY RESEARCH MISSION

VEHICLE - Columbia/OV-102

LAUNCH DATE: Jan. 16, 2003

OFFICIAL LAUNCH TIME: 10:39 a.m. EST

TARGET LANDING DATE: Feb. 1, 2003 at 9:17 a.m. EST

MISSION DURATION: 16 days

CREW: Husband, McCool, Anderson, Chawla, Brown, Clark, Ramon

ORBITAL INSERTION ALTITUDE AND INCLINATION: 150 nautical miles/39 degrees

Shuttle Processing Note: On orbit, Shuttle Columbia continues to perform well on its SPACEHAB microgravity research mission. Columbia's astronauts completed an experiment studying the activity of bone cells in microgravity and began final tests with a technology demonstration designed to investigate the behavior of capillary-pumped loops in space. The 16-day international science mission is scheduled to land on Feb. 1 at 9:17 a.m. at Kennedy Space Center's Shuttle Landing Facility.

MISSION STS-114 -- 17TH ISS FLIGHT (ULF1) - CREW ROTATION/MULTI-PURPOSE LOGISTICS MODULE

Buckingham-1, Bruce, 10:35 AM 1/27/2003 -0500, 1-27-03 Shuttle status

VEHICLE: Atlantis/OV-104

TARGET LAUNCH DATE: March 1, 2003

TARGET LANDING DATE: March 13, 2003

MISSION DURATION: 12 days

SHUTTLE CREW: Collins, Kelly, Noguchi, Robinson

ISS EXPEDITION CREW 7: Malenchenko, Kaleri, Lu

ORBITAL ALTITUDE AND INCLINATION: 122 nautical miles, 51.6 degrees

Shuttle Processing Note: Technicians have completed all processing and closeouts in preparation for Atlantis launch to the International Space Station in March. The Orbiter will be weighed today in preparation for mating to the Orbiter Transporter System on Tuesday.

MISSION STS-115 -- 18th ISS FLIGHT (12A) ? P3/P4 SOLAR ARRAYS

VEHICLE - Endeavour/OV-105

TARGET LAUNCH DATE: May 23, 2003

TARGET LANDING DATE: June 3, 2003

MISSION DURATION: 10 days

CREW: Jett, Ferguson, Tanner, Burbank, MacLean, Stefanyshyn-Piper

ORBITAL INSERTION ALTITUDE AND INCLINATION: 122 nautical miles/51.6 degrees

Shuttle Processing Note: Processing continues for Endeavour's STS-115 launch to the International Space Station in May. The left Orbiter Maneuvering System pod has been removed. Replacement of window No. 11 is in work. Installation of the Endeavour's Auxiliary Power Units is in work.

ORBITER MAJOR MODIFICATION PERIOD

VEHICLE: Discovery/OV-103

Shuttle Processing Note: The Orbiter Major Modification (OMM) period for Discovery continues with Avionics Bay 3A structures modifications, and Avionics Bay 1 and 2 integrated wiring modifications. Multi-Purpose Logistics Module dedicated heat exchanger and radiator isolation modifications are in work. Wire inspections and repairs are ongoing.

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Subject: 1-13-03 Eastern Range Launch Weather Forecast
Date: Mon, 13 Jan 2003 11:02:57 -0500
X-Mailer: Internet Mail Service (5.5.2653.19)

Eastern Range Launch Weather Forecast Op Number: F1120 Issued: 13
January 2003 Valid: 16 January 2003 45 Weather Squadron web site:
<https://www.patrick.af.mil/45OG/45ws/>

Vehicle/Payload: STS-107 (Columbia) SPACEHAB/FREESTAR

Location: Launch Complex 39, Pad A

Launch Weather Officer: Kathy Winters, 45th Weather Squadron, Cape Canaveral

Synoptic Discussion: A high pressure ridge will be located over the Carolinas and a low pressure area will develop over Eastern Texas Thursday AM. No significant weather features will be present over KSC for launch with light winds from the NE and temperatures in the 60s throughout the morning. The weather system in Texas Thursday will affect KSC Friday, causing a concern for crosswinds and showers if there is a 24-hour delay.

Clouds	Coverage	Bases (feet)	Tops (feet)
Cumulus	1/8 FEW	4000 6000	

Visibility: 7

Wind: 050 degrees, 10 knots, Peak 14 knots (60 foot pad winds)

Temperature: 65 - 68 F RH: 73 - 81% Dewpoint: 59 F

Weather: None

Probability of KSC weather prohibiting launch: 5%

Buckingham-1, Bruce, 11:02 AM 1/13/2003 -0500, 1-13-03 Eastern Range Launch Weather Forecast

Probability of KSC weather prohibiting Tanking: 0%
Primary concern(s): Slight chance for low cloud over Pad 39-A

Probability of KSC weather prohibiting launch for 24 hour delay:
60%

Probability of KSC weather prohibiting Tanking: 0%
Primary concern(s): Showers vicinity of KSC, crosswinds at the Shuttle
Landing Facility.

Probability of KSC weather prohibiting launch for 48 hour delay:
N/A

Probability of KSC weather prohibiting Tanking:
N/A

Primary concern(s): N/A

SRB Retrieval Area: Wind: NE-15 knots Sea State: 5-6 feet Ocean
temperature: 74 degrees

Sunrise: 16 Dec 0717 EST Moonrise: 16 Dec 1611 EST

Illumination: 97%

Sunset: 16 Dec 1749 EST Moonset: 17 Dec 0644 EST

Next Forecast will be issued: 14 Jan 03 / 0700 EST

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Monday, Jan: 13, 2003 (11 a.m.)

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MISSION STS-107 -SPACEHAB/ FREESTAR MICROGRAVITY RESEARCH MISSION

VEHICLE - Columbia/OV-102

TARGET LAUNCH DATE: Jan. 16, 2003

TARGET LAUNCH PERIOD: 10 a.m. - 2 p.m.

TARGET LANDING DATE: Feb. 1, 2003

MISSION DURATION: 16 days

CREW: Husband, McCool, Anderson, Chawla, Brown, Clark, Ramon

ORBITAL INSERTION ALTITUDE AND INCLINATION: 150 nautical miles/39 degrees

Shuttle Processing Note: The launch countdown began late last night for Shuttle Columbia's Spacehab microgravity research mission scheduled to launch this Thursday, Jan. 16. Work continues at Pad 39-A with preparations in work for loading the liquid hydrogen and liquid oxygen into the Power Reactant Storage and Distribution System. Due to the quantity and nature of research to be performed on this mission, technicians have begun preparations to load late stow payloads. Tomorrow will begin the 16-hour task of loading the late stow payloads and experiments into the Spacehab module.

Buckingham-1, Bruce, 11:38 AM 1/13/2003 -0500, 01.13.03 Shuttle Status

Mission managers met last night to discuss the status of the ongoing engineering analysis of a surface crack that was found on a 2.25-inch diameter metal ball associated with the Ball Strut Tie Rod Assembly (BSTRA) inside Discovery's 17-inch liquid oxygen line. No inspections were performed on Columbia. The results of the testing have given the Space Shuttle program enough confidence to begin the countdown, with the final launch rationale to be presented at the standard meeting held two days prior to launch.

The STS-107 crew members arrived last night at the Shuttle Landing Facility at Kennedy Space Center in preparations for their launch on Thursday.

Weather forecasters predict a favorable outlook for a launch attempt on Thursday, with only a 5 percent chance of weather prohibiting launch.

-- end --

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Date: Thu, 23 Jan 2003 11:34:44 -0500
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KENNEDY SPACE CENTER
SHUTTLE & PAYLOAD PROCESSING STATUS REPORT
Thursday, Jan. 23, 2003 (10 a.m.)

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MISSION STS-107 -SPACEHAB/ FREESTAR MICROGRAVITY RESEARCH MISSION

VEHICLE - Columbia/OV-102

LAUNCH DATE: Jan. 16, 2003

OFFICIAL LAUNCH TIME: 10:39 a.m. EST

TARGET LANDING DATE: Feb. 1, 2003 at 9:17 a.m. EST

MISSION DURATION: 16 days

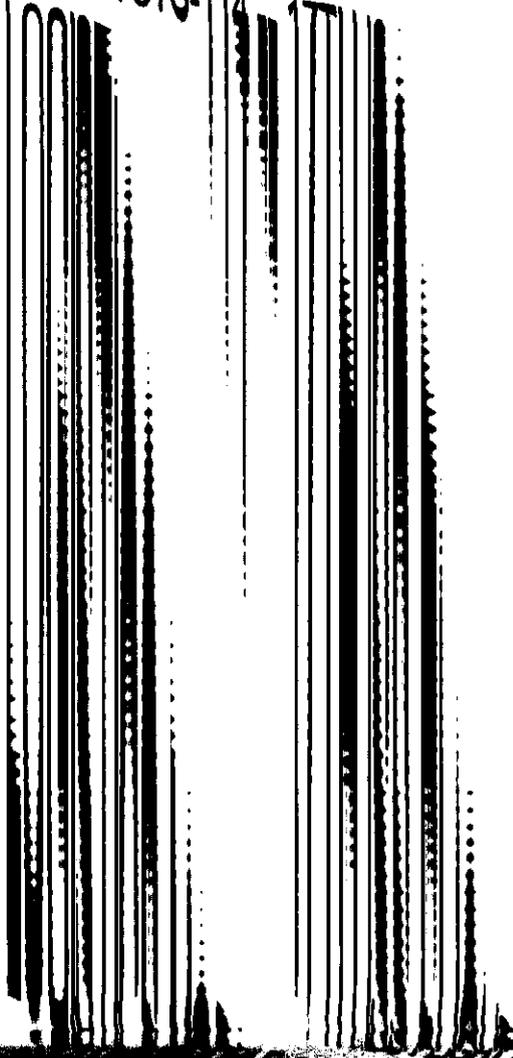
CREW: Husband, McCool, Anderson, Chawla, Brown, Clark, Ramon

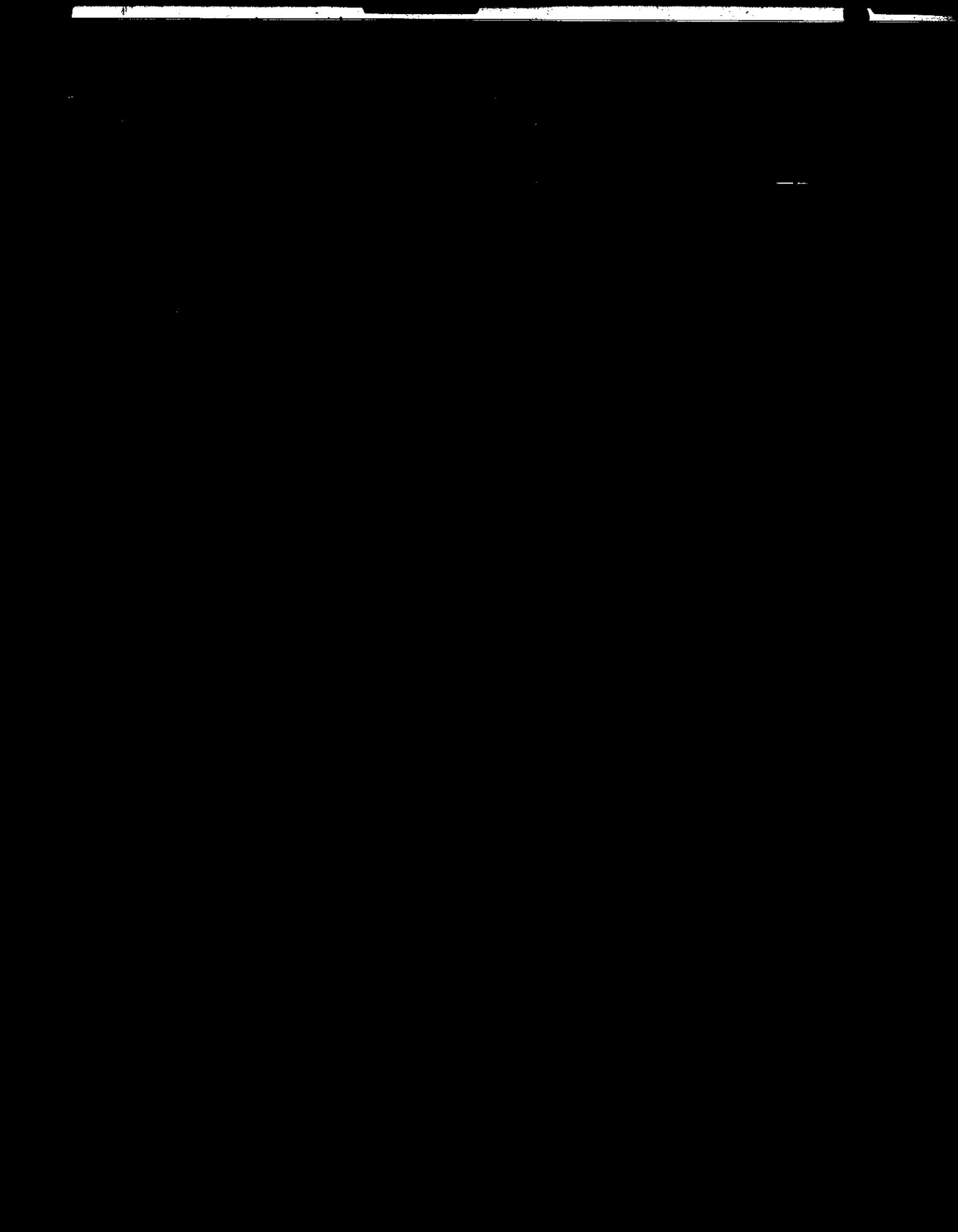
ORBITAL INSERTION ALTITUDE AND INCLINATION: 150 nautical miles/39 degrees

Shuttle Processing Note: On orbit, Shuttle Columbia continues to perform well on its SPACEHAB microgravity research mission. Science activities aboard Space Shuttle Columbia continued Wednesday as the STS-107 crew monitored and sent television footage to Earth of the progress of experiments developed by students from six different countries. The experiments are part of the Space Technology and Research Students, or STARS, project. The first landing opportunity is scheduled for Feb. 1 at 9:17 a.m.

Buckingham-1, Bruce, 11:34 AM 1/23/2003 -0500, 1-23-03 status

MISSION STS-114





MISSION STS-114 -- 17TH ISS FLIGHT (ULF1) - CREW ROTATION/MULTI-PURPOSE LOGISTICS MODULE

VEHICLE: Atlantis/OV-104

TARGET LAUNCH DATE: March 1, 2003

TARGET LANDING DATE: March 13, 2003

MISSION DURATION: 12 days

SHUTTLE CREW: Collins, Kelly, Noguchi, Robinson

ISS EXPEDITION CREW 7: Malenchenko, Kaleri, Lu

ORBITAL ALTITUDE AND INCLINATION: 122 nautical miles, 51.6 degrees

Shuttle Processing Note: Technicians in the processing facility continue to prepare

Atlantis for its March launch to the International Space Station. Aft closeouts are complete and forward closeouts are in work.

MISSION STS-115 -- 18th ISS FLIGHT (12A) ? P3/P4 SOLAR ARRAYS

VEHICLE - Endeavour/OV-105

TARGET LAUNCH DATE: May 23, 2003

TARGET LANDING DATE: June 3, 2003

MISSION DURATION: 10 days

CREW: Jett, Ferguson, Tanner, Burbank, MacLean, Stefanyshyn-Piper

ORBITAL INSERTION ALTITUDE AND INCLINATION: 122 nautical miles/51.6 degrees

Shuttle Processing Note: Endeavour continues to be processed for its STS-115 launch to the International Space Station scheduled in May 2003. Forward Reaction Control System checkout is complete. Installation of the Auxiliary Power Units is in work, and technicians are in the process of removing the Remote Manipulator System aboard Endeavour.

ORBITER MAJOR MODIFICATION PERIOD

VEHICLE: Discovery/OV-103

Shuttle Processing Note: The Orbiter Major Modification (OMM) period for Discovery continues with Avionics Bay 3A structures modifications, and the Multi-Purpose Logistics Module dedicated heat exchange and radiator isolation modification. Wire inspections and repairs are ongoing.

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Subject: 1/31/03 STS-107 END OF MISSION LANDING WEATHER FORECAST

Date: Fri, 31 Jan 2003 09:24:57 -0500

X-Mailer: Internet Mail Service (5.5.2656.59)

STS-107 END OF MISSION
LANDING WEATHER FORECAST
SPACEFLIGHT METEOROLOGY GROUP
Forecaster: G. Wayne Baggett

ISSUED: Friday, January 31, 2003

George H. Diller
NASA Kennedy Space Center
321/867-2468

Rob Navias
NASA Johnson Space Center
281/483-5111

WEATHER SYNOPSIS: High pressure over Texas Saturday morning will push drier over Florida for tomorrow's landing opportunities accompanied by increasing northwesterly winds. By Sunday morning, the high will be centered over Florida creating light northerly winds and only a few, if any clouds. Acceptable weather is expected at KSC for Monday's landing opportunities in the event of two wave-off days.

No weather constraints are expected at Edwards or White Sands on Saturday, but winds will increase at Edwards for the later opportunity as a cold front approaches Southern California. Sunday and Monday opportunities should have acceptable weather except for strong winds and blowing dust at White Sands on Sunday.

END OF MISSION LANDING WEATHER FORECASTS FOR 2/1/03

Kennedy Space Center Shuttle Landing Facility
Valid 9:16 AM EST

Clouds: Scattered 3,500
Scattered 25,000

Visibility: 7 miles

Winds: 300 degrees 10 knots, Peak 15 knots

Buckingham-1, Bruce, 09:24 AM 1/31/2003 -0500, 1/31/03 STS-107 END OF MISSION LANDING WE

310 degrees 15 knots, Peak 20 knots 2nd Opportunity
Runway: 33 planned for both opportunities

Temperature: 56 degrees
Dew Point: 48 degrees
Relative humidity: 66%

Precipitation: None

Edwards Air Force Base
Valid 10:42 AM EDT / 9:42 AM CST

Clouds: Scattered 25,000

Visibility: 7 miles

Winds: 230 degrees 8 knots, Peak 13 knots
230 degrees 15 knots, Peak 25 knots 2nd opportunity
Runways: 22/04

Precipitation: None

WAVE-OFF LANDING WEATHER FORECASTS FOR 2/02/03

Kennedy Space Center Shuttle Landing Facility
Valid 7:39 AM EST / 6:39 AM CST

Clouds: Few 3,500

Visibility: 7 miles

Winds: 350 degrees at 4 knots, Peak 6 knots
Runways: 33/15

Temperature: 54 degrees
Dew Point: 44 degrees
Relative humidity: 59%

Precipitation: None

Edwards Air Force Base
Valid 10:39 EST / 9:39 CST

Clouds: Few 12,000
Scattered 25,000

Visibility: 7 miles

Winds: 020 degrees 12 knots, Peak 18 knots
030 degrees 15 knots, Peak 25 knots 2nd Opportunity

Runways: 22/04

Precipitation: None

NOAA National Weather Service
Spaceflight Meteorology Group
Johnson Space Center

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Subject: EXPANDED AIRSPACE RESTRICTIONS PLANNED FOR JAN. 16 SPACE SHUTTLE LAUNCH

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321/867-2468

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EXPANDED AIRSPACE RESTRICTIONS PLANNED FOR JAN. 16 SPACE SHUTTLE LAUNCH

The launch of Space Shuttle Columbia on mission STS-107 is scheduled for Thursday, Jan. 16. All restricted areas surrounding the Kennedy Space Center will be active and the area covered by flight restrictions has once again been expanded for this launch. The length of time the restrictions will be in effect prior to launch has also been extended.

Due to international terrorist activities, heightened security is essential to protect the Space Shuttle as a national asset. An inadvertent unauthorized incursion into the area of the Cape Canaveral Temporary Flight Restriction (TFR) could cause a scrub in the launch of Columbia, the activation of airspace defenses and an FAA enforcement action. Local pilots are asked to help NASA by respecting these temporary but necessary restrictions so that the launch can occur on time and without incident.

The expanded area will be activated on Thursday, Jan. 16 beginning at 1:40 a.m. EST and will remain in effect until 5:40 p.m. EST. However, the TFR is expected to lifted earlier once it can be confirmed that Columbia is safely

Buckingham-1, Bruce, 01:52 PM 1/13/2003 -0500, EXPANDED AIRSPACE RESTRICTIONS PLANNE

on orbit and no return to launch site (RTLS) or abort once around (AOA) will be necessary. Should the launch be scrubbed after the astronauts have boarded Space Shuttle Columbia, the restrictions will remain in effect for three hours after the postponement has been announced. The launch time will be issued 24 hours in advance, but not later than 10 a.m. on Wednesday, Jan. 15.

FAA Part 91, Part 125, general aviation and VFR operations are prohibited within a 30 nautical mile radius of Launch Pad 39-A from the surface to but not including 18,000 feet (located on the Melbourne VOR/DME 004-degree radial at 30 nautical miles). Among the general aviation airports affected within this area are Space Coast Regional Airport in Titusville, Arthur Dunn Airpark in Titusville, Merritt Island Airport in Merritt Island, Rockledge Airpark in Rockledge and Massey Ranch in Edgewater.

Within an airspace radius between 30 and 40 nautical miles of Pad 39-A, a discrete transponder code must be obtained and clearance granted from air traffic control before entering this airspace. Continuous radio communications must be maintained.

Before flight, pilots should contact the FAA Flight Service Station at 1-800/WxBrief (1-800/992-7433) for details of the restrictions contained in the NOTAMS. In flight, outside Orlando Class B airspace, pilots should contact Daytona Beach Approach control on 134.95. In the Melbourne area contact Daytona Approach on 132.65, or in the New Smyrna Beach area on 125.35. Flight Service can also be reached locally by radio on the Titusville RCO at 123.6 or the Melbourne RCO on 122.6.

Among the airports affected within the 30-40 nautical mile radius in which flight is permitted but under positive air traffic control are Orlando International Airport, Orlando Executive Airport, Orlando-Sanford International Airport, the New Smyrna Beach and Spruce Creek airports, Melbourne International Airport and Valkaria.

The necessity for and scope of these increased restrictions is reviewed prior to each launch.

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Texas have been alerted. Any debris that is located in the area that may be related to the Space Shuttle contingency should be avoided and may be hazardous as a result of toxic propellants used aboard the shuttle. The location of any possible debris should immediately be reported to local authorities.

Flight controllers in Mission Control have secured all information, notes and data pertinent to today's entry and landing by Space Shuttle Columbia and continue to methodically proceed through contingency plans.

More information will be released as it becomes available.

-end-

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"Mission Success Starts with Safety"

To: tom-marple
From: "Jonathan B. Mullin" <jmullin@hq.nasa.gov>
Subject: Fwd: STS-107 MCC Status Report #19
Cc: stacey-nakamura
Bcc: Mullin_Jonathan
Attached:

Tom, forwarded as part of the notification and for your information. Regards, Jon
Mailing-List: contact ksc-news_release-help@kscnews.ksc.nasa.gov; run by ezmlm
X-No-Archive: yes
list-help: <mailto:ksc-news_release-help@kscnews.ksc.nasa.gov>
list-unsubscribe: <mailto:ksc-news_release-unsubscribe@kscnews.ksc.nasa.gov>
list-post: <mailto:ksc-news_release@kscnews.ksc.nasa.gov>
Delivered-To: mailing list ksc-news_release@kscnews.ksc.nasa.gov
Delivered-To: moderator for ksc-news_release@kscnews.ksc.nasa.gov
From: "Buckingham-1, Bruce" <Bruce.Buckingham-1@nasa.gov>
To: "1 'ksc-news_release@kscnews.ksc.nasa.gov' (E-mail)" <ksc-news_release@kscnews.ksc.nasa.gov>
Subject: STS-107 MCC Status Report #19
Date: Sat, 1 Feb 2003 19:44:13 -0500
X-Mailer: Internet Mail Service (5.5.2653.19)

STS-107
Report #19
Saturday, February 1, 2003 - 7:00 p.m. CST
Mission Control Center, Houston, Texas

The Space Shuttle Columbia and its seven astronauts were lost today when the vehicle broke up over north central Texas during its reentry from orbit.

Communications were lost with Columbia and its crew at around 8:00 a.m. CST, while the shuttle was traveling about 18 times the speed of sound at an altitude of 207,000 feet. Columbia was 16 minutes from landing at the Kennedy Space Center when flight controllers at Mission Control lost contact with the vehicle. Columbia was returning from a 16-day scientific research mission, its 28th flight, which launched on January 16.

Aboard Columbia were Commander Rick Husband, completing his second flight, Pilot William McCool, wrapping up his first mission, Mission Specialists Dave Brown, also completing his first mission, Kalpana Chawla, on her second flight, Laurel Clark, a first-time space traveler, Payload Commander Mike Anderson, ending his second flight, and Payload Specialist Ilan Ramon of the Israel Space Agency, on his first flight.

Prior to the loss of communications with Columbia, the shuttle's return to Earth appeared perfectly normal. After assessing some wispy fog near the

shuttle's three-mile long landing strip at KSC before dawn, Entry Flight Director Leroy Cain gave approval for the firing of the shuttle's braking rockets to begin its descent from orbit.

Husband and McCool began the deorbit burn to allow Columbia to slip out of orbit at 7:15 a.m. CST. There was no indication of anything abnormal with Columbia's reentry until the last communications between Mission Control and the crew.

At Columbia's intended landing site, NASA Administrator Sean O'Keefe and Associate Administrator for Space Flight William Readdy met with the families of the astronauts to offer their condolences, vowed to uncover the cause of the accident and press ahead with the Shuttle program.

"This is indeed a tragic day for the NASA family, for the families of the astronauts who flew on STS-107, and likewise is tragic for the nation," said O'Keefe.

"We have no indication that the mishap was caused by anything or anyone on the ground," O'Keefe added.

In a briefing, Chief Flight Director Milt Heflin said that around 7:53 a.m. CST, just minutes before communications were lost with Columbia, flight controllers detected indications of a loss of hydraulic system temperature measurements associated with Columbia's left wing, followed three minutes later by an increase in temperatures on the left main gear tires and brakes. At 7:58 a.m., flight controllers noted a loss of bondline temperature sensor data in the area of the left wing followed a minute later by a loss of data on tire temperatures and pressures for the left inboard and outboard tires.

After several attempts to try to contact Columbia, Cain declared a contingency, whereby flight controllers began preserving documentation regarding the entry phase of the flight. Recovery forces fanned out from Texas to Louisiana to try to recover debris that will be pertinent to the mishap investigation.

Space Shuttle Program Manager Ron Dittmore said several teams have been organized to gather data for analysis and will report to an external investigation board that was appointed by Administrator O'Keefe. Dittmore added that no specific orbiter debris or crew remains have been positively identified at this time, and that there is no leading theory for the cause of the accident.

Dittmore said the processing of other shuttles at the Kennedy Space Center for future launches has been temporarily halted to enable engineers to review data regarding vehicle processing and to focus attention on capturing all pertinent information involving Columbia's prelaunch preparations.

NASA managers will be meeting on a regular basis to begin reviewing data associated with Columbia's investigation. The next status briefing from the Johnson Space Center is tentatively scheduled from the Johnson Space Center, Houston, TX at 12:00 p.m. CST Sunday. It will be seen on NASA Television with two-way question and answer capability for reporters from NASA centers.

NASA TV can be found on AMC-2, Transponder 9C, vertical polarization at 85 degrees West longitude, 3880 MHz, with audio at 6.8 MHz.

On the International Space Station, Expedition 6 Commander Ken Bowersox, Flight Engineer Nikolai Budarin and NASA ISS Science Officer Don Pettit were informed of the loss of Columbia and its crew shortly after a Russian Progress resupply vehicle undocked from the ISS. Filled with discarded items no longer needed on the ISS, the Progress was commanded to deorbit by Russian flight controllers and reentered the Earth's atmosphere.

A new Progress cargo ship will be launched Sunday from the Baikonur Cosmodrome in Kazakhstan at 6:59 a.m. CST (1259 GMT) filled with supplies for the Expedition 6 crew. It is scheduled to dock to the ISS Tuesday morning. ISS program officials say, if necessary, the current resident crew could remain in orbit until late June with the supplies being ferried to the station on the new Progress.

Additional status reports will be issued as new information becomes available.

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"Mission Success Starts with Safety"

lemke-john, 08:54 AM 2/8/2003 -0500, Fwd: FW: AF Photos on loss of shuttle

To: lemke-john
From: "Jonathan B. Mullin" <jmullin@hq.nasa.gov>
Subject: Fwd: FW: AF Photos on loss of shuttle
Cc: Richardson_Pamela
Bcc:
Attached: c:\program files\europa\attach\FW AF Photos on loss of shuttle;

John, can you open this one? Jon

From: McCombs Mike L GS-14 30SW/SES <Mike.McCombs@vandenberg.af.mil>
To: Alfonso Brenda L Contr/DET9 Tecolote Research
<Brenda.Alfonso2@vandenberg.af.mil>,
Cotton Lea A Civ AFSC/SEW
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<ken.morrison@osl.nro.mil>,
Cortopassi Ronald B GS-15 30SW/SE
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Valentine Ronald F Jr GS-14 30SW/SESI
<Ronald.Valentine@vandenberg.af.mil>,
"Skelly, Anne, MAJ, OSD"
<AnneSkelly@osd.pentagon.mil>,
Newman Thelma M GS-11 30SW/SE
<Thelma.Newman@vandenberg.af.mil>,
Stark William H GS-13 14AF/SE
<William.Stark@vandenberg.af.mil>
Subject: FW: AF Photos on loss of shuttle
Date: Fri, 7 Feb 2003 23:17:29 -0000
X-MS-TNEF-Correlator:
<9D7029507E44D311AE99009027887D76032996B2@fsxumu07.vandenberg.af.mil>
X-Mailer: Internet Mail Service (5.5.2653.19)

-----Original Message-----

From: Aulabaugh, Stanley E [mailto:stanley.e.aulabaugh@lmco.com]
Sent: Friday, February 07, 2003 12:39 PM
To: "Ol" George' Meyer (E-mail); Lacombe, George A; Mike McCombs (E-mail);
Bircher, Steven J; 'Michael. Pulgine (E-mail); Patzman, Laurence S
Subject: FW: AF Photos on loss of shuttle

-----Original Message

Air Force imagery confirms Columbia wing damaged
BY CRAIG COVAULT
AVIATION WEEK & SPACE TECHNOLOGY/aviationnow.com
PUBLISHED HERE WITH PERMISSION
Posted: February 7, 2003

High-resolution images taken from a ground-based Air Force tracking camera in southwestern U.S. show serious structural damage to the inboard leading edge of Columbia's left wing, as the crippled orbiter flew overhead about 60 sec. before the vehicle broke up over Texas killing the seven astronauts on board Feb. 1.

According to sources close to the investigation, the images, under analysis at the Johnson Space Center in Houston, show a jagged edge on the left inboard wing structure near where the wing begins to intersect the fuselage. They also show the orbiter's right aft yaw thrusters firing, trying to correct the vehicle's attitude that was being adversely affected by the left wing damage. Columbia's fuselage and right wing appear normal. Unlike the damaged and jagged left wing section, the right wing appears smooth along its entire length. The imagery is consistent with telemetry.

The ragged edge on the left leading edge, indicates that either a small structural breach -- such as a crack -- occurred, allowing the 2,500F reentry heating to erode additional structure there, or that a small portion of the leading edge fell off at that location.

Either way, the damage affected the vehicle's flying qualities as well as allowed hot gases to flow into critical wing structure -- a fatal combination.

It is possible, but yet not confirmed, that the impact of foam debris from the shuttle's external tank during launch could have played a role in damage to the wing leading edge, where the deformity appears in USAF imagery.

If that is confirmed by the independent investigation team, it would mean that, contrary to initial shuttle program analysis, the tank debris event at

launch played a key role in the root cause of the accident.

Another key factor is that the leading edge of the shuttle wing where the jagged shape was photographed transitions from black thermal protection tiles to a much different mechanical system made of reinforced carbon-carbon material that is bolted on, rather than glued on as the tiles are.

This means that in addition to the possible failure of black tile at the point where the wing joins the fuselage, a failure involving the attachment mechanisms for the leading edge sections could also be a factor, either related or not to the debris impact. The actual front structure of a shuttle wing is flat. To provide aerodynamic shape and heat protection, each wing is fitted with 22 U-shaped reinforced carbon-carbon (RCC) leading-edge structures. The carbon material in the leading edge, as well as the orbiter nose cap, is designed to protect the shuttle from temperatures above 2,300F during reentry. Any breach of this leading-edge material would have catastrophic consequences.

The U-shaped RCC sections are attached to the wing "with a series of floating joints to reduce loading on the panels due to wing deflections," according to Boeing data on the attachment mechanism.

"The [critical heat protection] seal between each wing leading-edge panel is referred to as a 'tee' seal," according to Boeing, and are also made of a carbon material.

The tee seals allow lateral motion and thermal expansion differences between the carbon sections and sections of the orbiter wing that remain much cooler during reentry.

In addition to debris impact issues, investigators will likely examine whether any structural bending between the cooler wing structure and the more-than-2,000F leading edge sections could have played a role in the accident. There is insulation packed between the cooler wing structure and the bowl-shaped cavity formed by the carbon leading-edge sections.

The RCC leading-edge structures are bolted to the wing using Inconel fittings that attach to aluminum flanges on the front of the wing.

The initial NASA Mission Management Team (MMT) assessment of the debris impact made Jan. 18, two days after launch, noted "The strike appears to have occurred on or relatively close to the 'wing glove' near the orbiter fuselage.

The term "wing glove" generally refers to the area where the RCC bolt-on material is closest to the fuselage. This is also the general area where USAF imagery shows structural damage.

The second MMT summary analyzing the debris hit was made on Jan. 20 and had no mention of the leading-edge wing glove area. That report was more focused on orbiter black tiles on the vehicle's belly. The third and final summary issued on Jan. 27 discusses the black tiles again, but also specifically says "Damage to the RCC [wing leading edge] should be limited to [its] coating only and have no mission impact." Investigators in Houston are trying to match the location of the debris impact with the jagged edge shown in the Air Force imagery.

Columbia reentry accident investigators are also trying to determine if, as in the case of the case of Challenger's accident 17 years ago, an undesirable materials characteristic noted on previous flights -- in this case the STS-112 separation of external tank insulation foam debris -- was misjudged by engineers as to its potential for harm, possibly by using analytical tools and information inadequate to truly identify and quantify the threat to the shuttle. As of late last week, NASA strongly asserted this was not the case, but intense analysis on that possibility continues.

The shuttle is now grounded indefinitely and the impact on major crew resupply and assembly flights to the International Space Station remain under intense review.

Killed in the accident were STS-107 Mission Commander USAF Col. Rick Husband; copilot Navy Cdr. William McCool; flight engineer, Kalpana Chawla; payload commander, USAF Lt. Col. Michael Anderson; mission specialist physician astronauts Navy Capt. Laurel Clark and Navy Capt. David Brown and Israeli Air Force Col. Ilan Ramon.

"We continue to recover crew remains and we are handling that process with the utmost care, the utmost respect and dignity," said Ronald Dittmore, shuttle program manager.

No matter what the investigations show, there are no apparent credible crew survival options for the failure Columbia experienced. With the ISS out of reach in a far different orbit, there were no credible rescue options if even if wing damage had been apparent before reentry -- which it was not.

If, in the midst of its 16-day flight, wing damage had been found to be dire, the only potential -- but still unlikely -- option would have been the formulation over several days by Mission Control of a profile that could have, perhaps, reduced heating on the damaged wing at the expense of the other wing for an unguided reentry, with scant hope the vehicle would remain controllable to about 40,000 ft., allowing for crew bailout over an ocean.

Reentry is a starkly unforgiving environment where three out of the four fatal manned space flight accidents over the last 35 years have occurred.

These include the Soyuz 1 reentry accident that killed cosmonaut Vladimir

Komarov in 1967 and the 1971 Soyuz 11 reentry accident that killed three cosmonauts returning after the first long-duration stay on the Salyut 1 space station.

The only fatal launch accident has been Challenger in 1986, although Apollo astronauts Gus Grissom, Ed White and Roger Chaffee were killed when fire developed in their spacecraft during a launch pad test not involving launch.

No other accident in aviation history has been seen by so many eyewitnesses than the loss of Columbia -- visible in five states.

Telemetry and photographic analysis indicate the breakup of the historic orbiter took place as she slowed from Mach 20-to-18 across California, Nevada, Arizona and New Mexico with the loss of structural integrity 205,000 ft. over north central Texas where most of the debris fell.

The science-driven STS-107 crew was completing 16 days of complex work in their Spacehab Research Double module and were 16 min. from landing at Kennedy when lost. Landing was scheduled for 8:16 a.m. CST.

Abnormal telemetry events in the reentry began at 7:52 a.m. CST as the vehicle was crossing the coast north of San Francisco at 43 mi. alt., about Mach 20.

The orbiter at this time was in a 43-deg. right bank completing its initial bank maneuver to the south for initial energy dissipation and ranging toward the Kennedy runway still nearly 3,000 mi. away.

That initial bank had been as steep as about 80 deg. between Hawaii and the California coast, a normal flight path angle for the early part of the reentry. The abnormal events seen on orbiter telemetry in Houston indicate a slow penetration of reentry heat into the orbiter and damage on the wing, overpowering the flight control system. Key events were:

* 7:52 a.m. CST: Three left main landing gear brakeline temperatures show an unusual rise. "This was the first occurrence of a significant thermal event in the left wheel well," Ditemore said. Engineers do not believe the left wheel well was breached, but rather that hot gasses were somehow finding a flow path within the wing to reach the wheel well.

* 7:53 a.m. CST: A fourth left brakeline strut temperature measurement rose significantly -- about 30-40 deg. in 5 min.

* 7:54 a.m. CST: With the orbiter over eastern California and western Nevada, the mid-fuselage mold line where the left wing meets the fuselage showed an unusual temperature rise. The 60F rise over 5 min. was not dramatic, but showed that something was heating the wing fuselage interface

area at this time. Wing leading edge and belly temperatures were over 2,000F. While the outside fuselage wall was heating, the inside wall remained cool as normal.

* 7:55 a.m. CST: A fifth left main gear temperature sensor showed an unusual rise.

* 7:57 a.m. CST: As Columbia was passing over Arizona and New Mexico, the orbiter's upper and lower left wing temperature sensors failed, probably indicating their lines had been cut. The orbiter was also rolling back to the left into about a 75-deg. left bank angle, again to dissipate energy and for navigation and guidance toward Runway 33 at Kennedy, then about 1,800 mi. away.

* 7:58 a.m. CST: Still over New Mexico, the elevons began to move to adjust orbiter roll axis trim, indicating an increase in drag on the left side of the vehicle. That could be indicative of "rough tile or missing tile but we are not sure," Dittmore said. At the same time, the elevons were reacting to increased drag on the left side of the vehicle, the left main landing gear tire pressures and wheel temperature measurements failed. This was indicative of a loss of the sensor, not the explosion or failure of the left main gear tires, Dittmore believes. The sensors were lost in a staggered fashion.

* 7:59 a.m. CST: Additional elevon motion is commanded by the flight control system to counteract right side drag. The drag was trying to roll the vehicle to the left, while the flight control system was commanding the elevons to roll it back to the right.

But the rate of left roll was beginning to overpower the elevons, so the control system fired two 870-lb. thrust right yaw thrusters to help maintain the proper flight path angle. The firing lasted 1.5 sec. and, along with the tire pressure data and elevon data, would have been noted by the pilots.

At about this time, the pilots made a short transmission that was clipped and essentially unintelligible

In Mission Control, astronaut Marine Lt. Col. Charles Hobaugh, the spacecraft communicator on reentry flight director Leroy Cain's team, radioed "Columbia we see your tire pressure [telemetry] messages and we did not copy your last transmission."

One of the pilots then radioed "Roger," but appeared to be cut off in mid transmission by static. For a moment there was additional static and sounds similar to an open microphone on Columbia but no transmissions from the crew.

All data from the orbiter then stopped and the position plot display in

Mission Control froze over Texas, although an additional 30 sec. of poor data may have been captured.

Controllers in Mission Control thought they were experiencing an unusual but non-critical data drop out. But they had also taken notice of the unusual buildup of sensor telemetry in the preceding few minutes.

About 3 min. after all data flow stopped, Hobaugh in mission control began transmitting in the blind to Columbia on the UHF backup radio system. "Columbia, Houston, UHF comm. check" he repeated every 15-30 sec., but to no avail. In central Texas, thousands of people at that moment were observing the orbiter break up at Mach 18.3 and 207,000 ft.

Milt Heflin, Chief of the Flight Director's office said he looked at the frozen data plots. "I and others stared at that for a long time because the tracking ended over Texas. It just stopped. It was was then that I reflected back on what I saw [in Mission Control] with Challenger."

The loss of Challenger occurred 17 years and four days before the loss of Columbia.

"Our landscape has changed," Heflin said. "The space flight business today is going to be much different than yesterday."

"It was different after the Apollo fire, it was different after Challenger."

Columbia, the first winged reusable manned spacecraft first launched in April 1981, was lost on her 28th mission on the 113th shuttle flight.

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Angotti-Cathy, 03:23 PM 2/21/2003 -0500, Fwd: STS-107 Commemorative Pins and Medallions

To: Angotti-Cathy
From: "Jonathan B. Mullin" <jmullin@hq.nasa.gov>
Subject: Fwd: STS-107 Commemorative Pins and Medallions
Cc:
Bcc:
Attached:

X-Authentication-Warning: spinoza.public.hq.nasa.gov: majordom set sender to owner-code-q using -f

X-Sender: ssmith2@mail.hq.nasa.gov

X-Mailer: QUALCOMM Windows Eudora Version 4.3.2

Date: Fri, 21 Feb 2003 12:14:39 -0500

To: code-q@lists.hq.nasa.gov

From: Susan Burch <:ssmith2@hq.nasa.gov>

Subject: STS-107 Commemorative Pins and Medallions

Sender: owner-code-q@lists.hq.nasa.gov

STS-107 Commemorative Pins and Medallions are now available in the Exchange Store.

Susan

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Phone (202) 358-0589
FAX (202) 358-3104
"Mission Success Starts with Safety"

EPP TEAM, 08:26 AM 2/13/2003 -0500, Fwd: Latest news on STS-107

To: EPP TEAM
From: "Jonathan B. Mullin" <jmullin@hq.nasa.gov>
Subject: Fwd: Latest news on STS-107
Cc:
Bcc: Fire-Protection, bill-wessel, susan-kilrain
Attached:

Dear colleague, I have learned that some of the NASA Team may not be on distribution for Columbia Press Releases from the Kennedy Space Center. Therefore, I am providing the process, reference below, should you desire to be advised on the latest events. Press on and keep up the good work!
Regards, Jon

Mailing-List: contact ksc-news_release-help@kscnews.ksc.nasa.gov; run by ezmlm
X-No-Archive: yes
list-help: <mailto:ksc-news_release-help@kscnews.ksc.nasa.gov>
list-unsubscribe: <mailto:ksc-news_release-unsubscribe@kscnews.ksc.nasa.gov>
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Delivered-To: mailing list ksc-news_release@kscnews.ksc.nasa.gov
Delivered-To: moderator for ksc-news_release@kscnews.ksc.nasa.gov
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To: "1 'ksc-news_release@kscnews.ksc.nasa.gov' (E-mail)" <ksc-news_release@kscnews.ksc.nasa.gov>
Subject: Latest news on STS-107
Date: Wed, 12 Feb 2003 18:46:32 -0500
X-Mailer: Internet Mail Service (5.5.2653.19)

STS-107 NEWS

The latest news on the loss of Columbia and the ensuing investigation can be found on <http://www.nasa.gov/columbia>

Bruce Buckingham
NASA News Chief
Kennedy Space Center, Fla., 32899

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Jonathan B. Mullin

Manager Operational Safety

Emergency Preparedness Coordinator

Headquarters National Aeronautics and Space Administration

Phone (202) 358-0589

FAX (202) 358-3104

"Mission Success Starts with Safety"

guy-camomilli, 08:19 AM 2/13/2003 -0500, Fwd: Latest news on STS-107

To: guy-camomilli
From: "Jonathan B. Mullin" <jmullin@hq.nasa.gov>
Subject: Fwd: Latest news on STS-107
Cc:
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To: "1 'ksc-news_release@kscnews.ksc.nasa.gov' (E-mail)" <ksc-news_release@kscnews.ksc.nasa.gov>
Subject: Latest news on STS-107
Date: Wed, 12 Feb 2003 18:46:32 -0500
X-Mailer: Internet Mail Service (5.5.2653.19)

STS-107 NEWS

The latest news on the loss of Columbia and the ensuing investigation can be found on <http://www.nasa.gov/columbia>

Bruce Buckingham
NASA News Chief
Kennedy Space Center, Fla., 32899

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susan-kilrain, 03:48 PM 2/12/2003 -0500, Fwd: FW: STS-107 MCC Status Report #27

To: susan-kilrain
From: "Jonathan B. Mullin" <jmullin@hq.nasa.gov>
Subject: Fwd: FW: STS-107 MCC Status Report #27
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Attached:

Some updates. Regards, Jon

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From: "Buckingham-1, Bruce" <Bruce.Buckingham-1@nasa.gov>
To: "1 'ksc-news_release@kscnews.ksc.nasa.gov' (E-mail)" <ksc-news_release@kscnews.ksc.nasa.gov>
Subject: FW: STS-107 MCC Status Report #27
Date: Wed, 12 Feb 2003 10:15:27 -0500
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STS-107

Report #27

Tuesday, February 11, 2003 - 2 p.m. CST
Mission Control Center, Houston, Texas

STS-107 Mishap Response Status Report #1

Columbia debris recovery efforts continued today centered in areas of eastern Texas and western Louisiana. More than 1,600 recovered items are at Barksdale Air Force Base, Shreveport, La. Barksdale is the central field collection point for debris being shipped to the Kennedy Space Center (KSC), Fla., to begin Shuttle Columbia reconstruction.

In addition, more than 300 items are at each of the field collection sites in Lufkin, Palestine and San Augustine, Texas, awaiting shipment to Barksdale. A smaller volume is at Carswell Naval Air Station in Fort Worth, Texas. Shipments of debris from Barksdale AFB to KSC begin this week. Two truckloads of items departed Louisiana en-route to KSC today.

No confirmed debris has been recovered west of the Fort Worth area. Teams continue to investigate reports from 27 states and eight jurisdictions outside of the U.S. Of 179 reports received from California, 105 have been closed. Of 162 reports in Arizona, eight have been closed. Of 12 reports in New Mexico, four have been closed.

To assist recovery efforts, searchers are using Civil Air Patrol volunteers, airborne radar and other assets. U.S. Navy assets also may be used to search the waters of Toledo Bend and Sam Rayburn reservoirs due to several eyewitness reports of debris entering those lakes. The search may continue for several weeks. Civil Air Patrol volunteers also are searching west of the Fort Worth area in regions along Columbia's flight path.

Preliminary identification of some debris reported by the Mishap Investigation Team included a roughly two-foot square section of an external tank umbilical door, a hydrazine propellant tank and electronics equipment from the Ku-band communications system. The Ku-band communications debris was erroneously identified yesterday as one of Columbia's five flight control computers, known as General Purpose Computers (GPCs). No GPCs have been identified among recovered items. All identifications of items are preliminary.

On the International Space Station, Expedition Six Commander Ken Bowersox, NASA Station Science Officer Don Pettit and Flight Engineer Nikolai Budarin took time out from unpacking items delivered by a Progress-10 Russian supply craft for their first news conference since the Columbia accident. The conference took place about three hours after the Progress' thrusters boosted the altitude of the station approximately 6.5 miles to an orbit of 240 x 255 miles.

Bowersox said the crew first heard of the loss of Columbia from Johnson Space Center Director Jefferson Howell, and the crew is being kept apprised of the status of the accident investigation.

"My first reaction was pure shock," Bowersox said. "I was numb, and it was hard to believe that what we were experiencing was really happening. And then as reality wore on, we were able to feel some sadness."

Bowersox said Mission Control has reduced the crew's schedule to allow time for grief and reflection, and the crew was provided ample opportunity for communication with families for emotional support.

"We've had time to grieve for our friends, and that was very important. When you're up here this long, you can't just bottle up your emotions and focus all of the time," Bowersox said. "It's important for us to acknowledge that the people on STS-107 were our friends, that we had a connection with them, and that we feel their loss, and each of us had a chance to shed some tears. But now, it's time to move forward and we're doing that slowly," he said.

Bowersox and Pettit said they have told Mission Control they are willing to stay in orbit for a year or more if necessary, and they would consider the extra time a bonus, not a hardship. They said that if it were decided that a

two-person crew should relieve them, that crew would be kept busy maintaining station systems but could still perform useful research.

"There would be time to do some level of research, and by virtue of having people here, you are always doing research on your body itself, looking at the effects of long duration, weightlessness on the human physiology," Pettit said.

"So it's important to keep people on Station. If we could continue to collect data and life science data in data sets for 10 or 15 year periods, it may actually turn out to be one of the more valuable data sets we get," he said.

The Expedition Six crew will conduct additional interviews with ABC, CNN and NBC starting at 9:30 a.m. CST Wednesday. The interviews will be broadcast live on NASA Television. NASA TV is available on AMC-2, Transponder 9C, vertical polarization at 85 degrees west longitude, 3880 MHz, with audio at 6.8 MHz.

For more information about NASA on the Internet:

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Jonathan B. Mullin
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Emergency Preparedness Coordinator
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To: lloyd_James
From: "Jonathan B. Mullin" <jmullin@hq.nasa.gov>
Subject: Fwd: Inquiries From General Public: Loss of Columbia and Its Crew
Cc: lemke-john,mark-kowaleski,Harkins_Wilson,bill-
bihner,Rutledge_Peter,Frazier_Wayne,Richardson_Pamela
Bcc: Mullin_Jonathan
Attached:

For your information, I called Ms. Grimes to ascertain if this process was available to all **NASA Centers.**

1. **NASA has a problem. I found that this Headquarters Process was not fully being worked at NASA Center level. Apparently, the process may just be developing at the NASA Center level.**
2. **Further NASA Headquarters is not staffed to handle all of the potential Agency general public inquiries that may be posed to NASA Centers.**
3. **Therefore, there will be no "One NASA" response to inquiries from the general public.**

Recommendation:

a. I understand that Mark Kowaleski is the Code Q Representative to this process, so perhaps he can give you further details.

b. Following the explanation of the process from the Code Q Point of Contact, Mark Kowaleske, pass this concern on to the SMA Directors as it may be of value for keeping SMA responses consistent.

Just some thoughts..

Regards, Jon

Date: Wed, 12 Feb 2003 11:50:23 -0500 (EST)

X-Authentication-Warning: spinoza.public.hq.nasa.gov: majordom set sender to owner-headquarters using -f

Subject: Inquiries From General Public: Loss of Columbia and Its Crew

From: InfoCom <infocom@hq.nasa.gov>

Sender: owner-headquarters@lists.hq.nasa.gov

This message is being transmitted to all NASA HQ employees.
Point of Contact: Teresa Grimes, Code CIC, 358-1280.

INQUIRIES FROM THE GENERAL PUBLIC:

The Loss of Columbia and Its Courageous Crew

In response to NASA's loss of the courageous STS-107 crew and of Space Shuttle Columbia, the general public is expressing their concerns and seeking information regarding this terrible tragedy.

The Public Inquiries Management Office (PIMO), Code CIC, is coordinating official Agency responses with the newly created Columbia Action Center.

HQ employees receiving e-mail, paper mail, and telephone calls from the general public should forward these inquiries immediately upon receipt to the PIMO. Send e-mails to public-inquiries@hq.nasa.gov and paper mail to Code CIC, room 9Q42. Redirect incoming telephone calls to Bridget Fenner, Team Lead, Public Inquiries Service Center, 358-0909.

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Jonathan B. Mullin

Manager Operational Safety

Emergency Preparedness Coordinator

Headquarters National Aeronautics and Space Administration

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From: "Jonathan B. Mullin" <jmullin@hq.nasa.gov>
Subject: Fwd: COLUMBIA ACCIDENT CONGRESSIONAL HEARING CARRIED ON NASA TELEVISION
Cc:
Bcc:
Attached:

Pam, I sent this to the EPP Team. Jon
Date: Tue, 11 Feb 2003 12:25:55 -0500
To: EPP TEAM
From: "Jonathan B. Mullin" <jmullin@hq.nasa.gov>
Subject: Fwd: COLUMBIA ACCIDENT CONGRESSIONAL HEARING CARRIED ON NASA TELEVISION
Cc: Susan-Kilrain

Information for all on the Team. Regards, Jon
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Glenn Mahone/Bob Jacobs
Headquarters, Washington
(Phone: 202/358-1600)

Feb. 11, 2003

RELEASE: 03-065

COLUMBIA ACCIDENT CONGRESSIONAL HEARING
CARRIED ON NASA TELEVISION

A joint congressional hearing into the Space Shuttle Columbia accident will be carried live on NASA Television tomorrow, Feb. 12, beginning at 9:30 a.m. EST. The hearing is in the Russell Caucus Room (SR-325), Russell Senate Office Building, Washington.

NASA Administrator Sean O'Keefe, Deputy Administrator Frederick Gregory, and Associate Administrator of Space Flight William Readdy will provide testimony about the accident and the investigation being carried out by the Space Shuttle Accident Investigation Board.

The joint hearing will be co-chaired by U.S. Senator John McCain, who is a ranking member of the Senate Committee on Commerce, Science and Transportation and U.S. Representative Sherwood Boehlert, who chairs the House Science Subcommittee on Space and Aeronautics.

NASA Television is broadcast on AMC-2, transponder 9C, C-Band, located at 85 degrees west longitude. The frequency is 3880.0 MHz. Polarization is vertical and audio is monaural at 6.8 MHz

Additional information about NASA and the accident is available on the Internet at:

www.nasa.gov

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"Mission Success Starts with Safety"

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"Mission Success Starts with Safety"

EPP TEAM, 12:25 PM 2/11/2003 -0500, Fwd: COLUMBIA ACCIDENT CONGRESSIONAL HEARING (

To: EPP TEAM
From: "Jonathan B. Mullin" <jmullin@hq.nasa.gov>
Subject: Fwd: COLUMBIA ACCIDENT CONGRESSIONAL HEARING CARRIED ON NASA TELEVISION
Cc: Susan-Kilrain
Bcc:
Attached:

Information for all on the Team. Regards, Jon
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To: "'1 'ksc-news_release@kscnews.ksc.nasa.gov' (E-mail)" <ksc-news_release@kscnews.ksc.nasa.gov>
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Glenn Mahone/Bob Jacobs
Headquarters, Washington
(Phone: 202/358-1600)

Feb. 11, 2003

RELEASE: 03-065

COLUMBIA ACCIDENT CONGRESSIONAL HEARING
CARRIED ON NASA TELEVISION

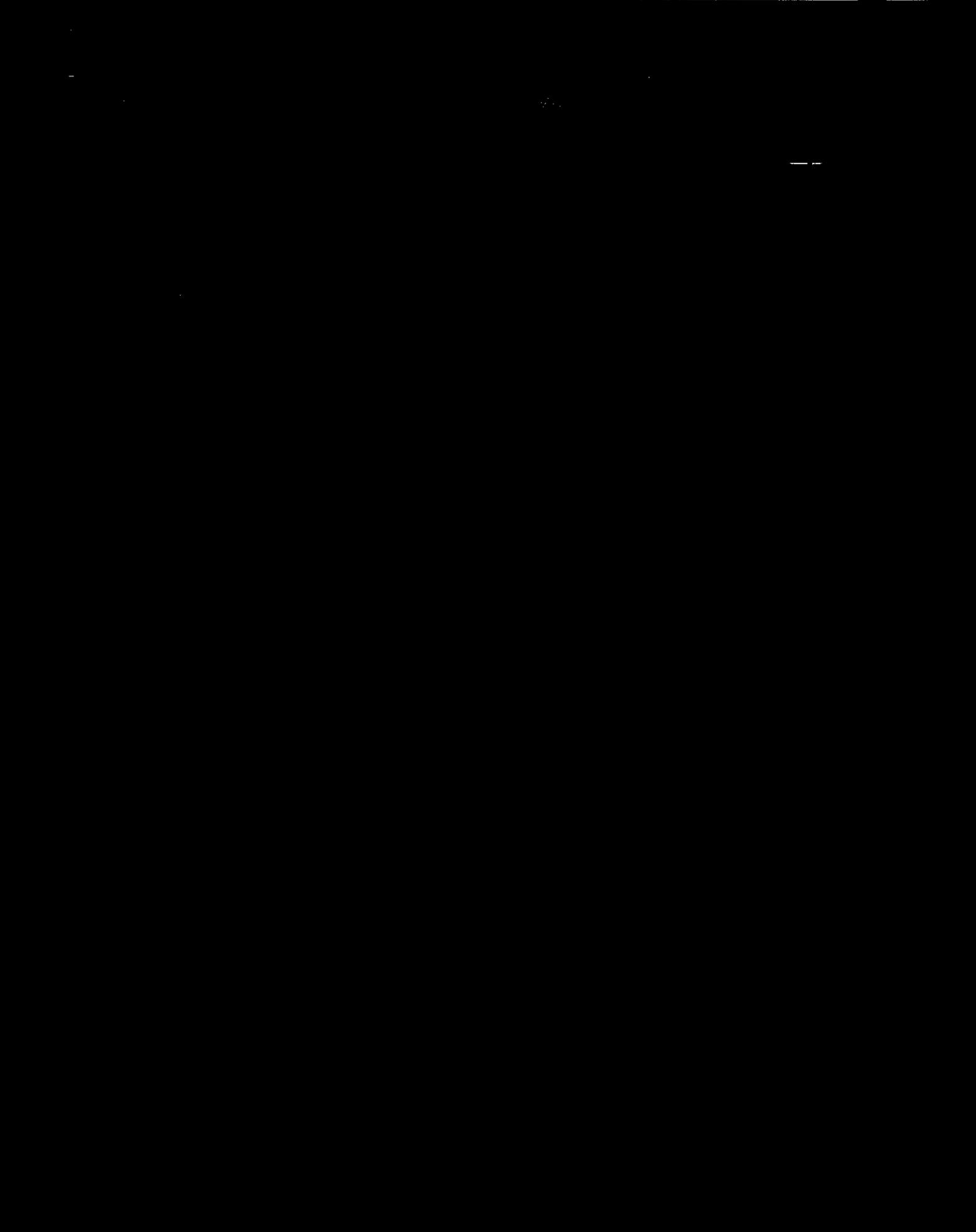
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The joint hearing will be co-chaired by U.S. Senator John

EPP TEAM

12:25 PM



McCain, who is a ranking member of the Senate Committee on Commerce, Science and Transportation and U.S. Representative Sherwood Boehlert, who chairs the House Science Subcommittee on Space and Aeronautics.

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To: Susan-Kilrain
From: "Jonathan B. Mullin" <jmullin@hq.nasa.gov>
Subject: Columbia
Cc:
Bcc:
Attached:

Information.

COLUMBIA AND THE STS-107 CREW

The latest information on Columbia and her crew will be posted at

<http://www.nasa.gov/columbia>

Regards, Jon

Jonathan B. Mullin

Manager Operational Safety

Emergency Preparedness Coordinator

Headquarters National Aeronautics and Space Administration

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FAX (202) 358-3104

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Subject: COLUMBIA ACCIDENT INVESTIGATION BOARD BRIEFING SET
Date: Mon, 10 Feb 2003 17:00:02 -0500
X-Mailer: Internet Mail Service (5.5.2656.59)

Glenn Mahone/Doc Mirelson
Headquarters, Washington Feb. 10, 2003
(Phone: 202/358-1600)

Steve Nesbitt
Johnson Space Center, Houston
(Phone: 281/483-5111)

RELEASE: 03-063

COLUMBIA ACCIDENT INVESTIGATION BOARD BRIEFING SET

The Columbia Accident Investigation Board (CAIB) will conduct its first press conference on Tuesday, Feb. 11, at 3 p.m. EST. The press briefing is in the Teague auditorium at the Johnson Space Center, Houston.

Board Chairman, retired Navy Admiral Harold W. Gehman Jr., and other board members, will discuss their activities to date, CAIB structure, and plans for the investigation.

Other board members are: Maj. Gen. John L. Barry, director, plans and programs, Headquarters USAF Materiel Command, Wright Patterson AFB, Ohio; Brig. Gen Duane W. Deal,

commander 21st Space Wing, Peterson AFB, Colo.; James Hallock, Massachusetts Institute of Technology (Draper Lab); Maj. Gen. Kenneth W. Hess, USAF chief of safety, Washington, and commander, Air Force Safety Center, Kirtland Air Force Base, N.M.; Scott Hubbard, director NASA Ames Research Center, Calif.; Roger E. Tetrault, former chairman of McDermott International, Inc.; Rear Adm. Stephen A. Turcotte, commander, Naval Safety Center, Norfolk, Va.; and Steven Wallace, Director, FAA Office of Accident Investigation.

Theron M Bradley Jr., NASA's Chief Engineer; and Bryan D. O'Connor, NASA's Associate Administrator are providing NASA's support to the board for Safety and Mission Assurance.

The press conference will be broadcast on NASA Television; reporters may ask questions from selected NASA centers. NASA Television is broadcast on AMC-2, transponder 9C, C-Band, located at 85 degrees west longitude. The frequency is 3880.0 MHz. Polarization is vertical and audio is monaural at 6.8 MHz.

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Manager Operational Safety

Emergency Preparedness Coordinator

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From: "Jonathan B. Mullin" <jmullin@hq.nasa.gov>
Subject: Fwd: ASTRONAUT SPOUSES & CHILDREN RELEASE STATEMENT
Cc:
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Attached:

Susan, a note from the NASA. Regards, Jon

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Delivered-To: moderator for ksc-news_release@kscnews.ksc.nasa.gov
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To: "1 'ksc-news_release@kscnews.ksc.nasa.gov' (E-mail)" <ksc-news_release@kscnews.ksc.nasa.gov>
Subject: ASTRONAUT SPOUSES & CHILDREN RELEASE STATEMENT
Date: Mon, 10 Feb 2003 14:24:48 -0500
X-Mailer: Internet Mail Service (5.5.2653.19)

Glenn Mahone/Robert Mirelson
Headquarters, Washington Feb. 08, 2003
(Phone: 202/358-1600)

RELEASE: 03-060

ASTRONAUT SPOUSES & CHILDREN RELEASE STATEMENT

The Astronaut Spouses Group released the following statement on Friday, Feb. 7.

"We, the spouses and children of the NASA astronaut corps, would like to thank the people of the world from the bottom of our hearts for the incredible outpouring of support and love that you have shown us in our time of deep grief.

"NASA centers have been overwhelmed with cards, letters, emails, and phone calls from you expressing your concern and support. We have also received hundreds of personal calls, emails, flowers, food, and cards at our homes. The makeshift shrine in front of the Johnson Space Center is overflowing with flowers, signs, and balloons from well wishers from all over the world. Memorial services throughout the world have honored our dear friends. You, our brothers and sisters of

the world community, have been a tremendous source of comfort and love to us and we are so grateful. We are deeply mourning our dear friends Rick, Willie, Mike, Kalpana, Ian, Laurel, and Dave and we ask that you continue to keep their parents, wives, husbands, and children in your thoughts and prayers.

"We would also like the world community to know that as terrible and as difficult as this journey has been and will continue to be for all of our families, we cannot stress enough how blessed and honored we feel to be counted as members of the NASA family. We proudly support the noble goals and objectives of NASA and we will continue to support NASA in its finest and its darkest hours. It is our deepest hope that you also will continue to share in our belief and support of NASA's dreams. We believe NASA is a beacon of hope and light to all nations, for NASA has proven beyond the shadow of a doubt, that peoples from all races, genders, cultures, religions, and political backgrounds can transcend those differences and become the closest of friends. And these friends will continue to pursue space exploration and scientific discovery for the single purpose of helping and furthering all of mankind. Thank you for your love and support.

"The husbands, wives, and children of the NASA Astronaut Corps."

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