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AGENCY

CONTINGENCY ACTION PLAN (CAP)

FOR

SPACE FLIGHT OPERATIONS (SFO)

**National Aeronautics and
Space Administration
Washington, DC 20546**

January 2003

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CONTINGENCY ACTION PLAN (CAP)
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SPACE FLIGHT OPERATIONS (SFO)

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This document supersedes the Agency
Contingency Action Plan for Space Flight Operations
Dated November 2002

Submitted by: _____ Date: _____

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Approved by: _____ Date: _____

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I. SCOPE AND PURPOSE OF PLAN

It is NASA policy to report, investigate, and document NASA mishaps. The Agency Contingency Action Plan (CAP) for Space Flight Operations (SFO) delineates the pre-planned contingency response to a SFO mishap. It covers actions to be taken by the NASA Administrator, the Associate Administrator for the Office of Space Flight (AA/OSF), NASA Headquarters, OSF Field Centers, and the Office of Space Flight (OSF) Programs and associated contractor personnel. NPG 8621.1 defines six mishap categories in that a contingency response is required. These mishap categories, along with established medical codes used by OSF, are defined in Appendix A of this plan.

A SFO mishap is defined here as any mishap, mission failure, incident, or high visibility close call that causes or may cause a major impact to space flight operations or prevents accomplishment of a primary mission objective involving OSF-controlled personnel, hardware, support equipment, or facilities or any personnel, hardware, software, equipment, or facilities that have been integrated with OSF-controlled flight related systems. An SFO mishap can involve any OSF space operations or development program, including suspected mishap situations at contractor facilities and/or government facilities operated under contract.

For any mishaps or close call, the Administrator may decide to appoint a Mishap Investigation Board (MIB) and activate the Headquarters Contingency Action Team. Type A and B mishaps, mission failures, and other mishaps that are judged to have a high degree of public interest will require a mishap board investigation. If there is a Type A mishap or mission failure, the AA/OSF will notify the Administrator and Associate Administrator for Safety and Mission Assurance (AA/SMA), who have the option of appointing a mishap investigation board. If the Administrator and AA/SMA decline to take action, the AA/OSF will appoint a board. This plan mainly addresses actions to be taken for Type A mishaps for which the Administrator or the AA/OSF has opted to appoint an investigation board and activate the Headquarters Contingency Action Team; however, it is also applicable for any other SFO-related failure, accident, or incident that creates a high degree of public interest and/or poses a threat to public safety.

II. REFERENCES

- A. NPD 8621.1H, "NASA Mishap Reporting and Investigating Policy".
- B. NPG 8621.1, "NASA Procedures and Guidelines for Mishap Reporting, Investigating, and Recordkeeping."
- C. NPG 8715.3, "NASA Safety Manual."
- D. CFR 14, Part 1213, "Release of Information to News and Information Media, Revised as of January 1, 1998."

III. CHANGES

The Deputy Associate Administrator for International Space Station and Space Shuttle Programs (NASA HQ/M-1) is responsible for maintenance of this document. Changes should be submitted directly to this office.

IV. SPACE FLIGHT OPERATIONS MISHAP REPORTING POLICY

- A. **WHAT TO REPORT:** All mishaps, high-visibility mission failures, and high-visibility close calls as required by NPD 8621.1H will be reported to the AA/OSF or designated representative.
- B. **WHEN TO REPORT:** Mishaps will be verbally reported to the AA/OSF within 60 minutes of occurrence.
- C. **WHO WILL REPORT:** OSF Center Directors, OSF Program/Project Managers or non-OSF management personnel responsible for OSF programs/projects will initiate the mishap report verbally to the AA/OSF. Contractors will report mishaps to their government contract monitors or program/project interfaces, which will in turn report to the AA/OSF. The AA/OSF will notify the Administrator and AA for Safety and Mission Assurance (AA/SMA) immediately after receiving the initial verbal report of any Type A or Type B mishap, any high-visibility mission failure, or any other high-visibility mishap or close call, and provide advice on the appropriate response.

V. RESPONSE TO CONTINGENCY

In response to a mishap the appropriate management organization will ensure that all necessary actions are taken to preserve life and prevent further injury; prevent further loss of resources; and securing, safeguarding, and impounding evidence. If the mishap involves the assets of an OSF Program, the appropriate Senior NASA Official will manage the follow-on response under the direction of the Deputy AA for ISS and Space Shuttle Programs or appropriate OSF Assistant Associate Administrator (AAA). Otherwise, the response will be managed within the management structure of the responsible OSF center. Figure 1 illustrates the general sequence and timing of actions related to mishap reporting and the notification of an OSF contingency.

A. ACTIVATION OF PLAN

1. The AA/OSF will declare a SFO mishap/contingency based on information received and notify the Administrator and the AA/SMA.
2. The Administrator, or designee, will activate this plan when notification of a mishap/contingency is received from the AA/OSF.
3. The Administrator, or designee, will decide what immediate telephone notification, if any should be made before the Headquarters Contingency Action Team (HCAT) meets.

B. SFO MISHAP RESPONSE TELEPHONE CONFERENCE

The mishap response telephone conference will be convened, once the operation is stable, to obtain an assessment of the initial response required and determine the next course of action. In the event of a Type A category mishap or major mission failure, the AA/OSF will direct the initiation of the SFO mishap response telephone conference.

1. The mishap response telephone conference is initiated at the direction of the AA/OSF following the declaration of a SFO mishap/contingency.
2. The AA/OSF may direct the Deputy AA for ISS and Space Shuttle Programs, the local Center Director, or other NASA Senior Manager to initiate the mishap response telephone conference.

A checklist for initiating the mishap response telephone conference is found in Appendix E of this plan.

3. The SFO mishap response telephone conference will be initiated no later than 2-½ hours after the contingency is declared.

C. HEADQUARTERS CONTINGENCY ACTION TEAM (HCAT) TELEPHONE CONFERENCE

Upon declaration of a SFO mishap/contingency, the HCAT Coordinator (see Section VI, E) will notify HCAT members of the approximate time the initial meeting or telephone conference will begin. The initial HCAT meeting/telephone conference will typically begin after the SFO mishap response telephone conference.

1. The Administrator, in consultation with the HCAT, will decide:
 - a. What outside notifications and/or re-notifications should be made using the checklist found in Appendix B of this plan.
 - b. When statements to the media will be made.
 - c. Whether any changes are required to the HCAT membership.
2. The AA/OSF will report to the HCAT on the outcome of the OSF mishap response telephone conference, including:
 - a. The extent and nature of the mishap/contingency.
 - b. The sequence of events leading to the mishap/contingency and whether an initial determination of a possible cause has been made.
 - c. Actions taken or planned, including deployment of NASA personnel and assets, actions involving outside personnel or assets, and program actions for mishap/contingency disposition.
3. The HCAT will review and advise the Administrator with respect to:
 - a. Whether the Administrator should:
 - (1) Exercise the option to appoint the mishap investigation board and, if so, recommendations on the board chairperson and membership. A checklist for appointing the mishap investigation board is found in Appendix C of this plan.
 - (2) Exercise the option to appoint the mishap investigation board and whether to activate the International Space Station and Space Shuttle Mishap Interagency Investigation Board. Appendix D delineates the membership, responsibilities, and associated support for this Board.
 - (3) Not exercise the option to appoint the mishap investigation board and what advice should be given the AA/OSF with respect to the establishment of the Board.
 - b. Whether the President should be advised to make a public statement and recommendations for the content of the public statement.
 - c. Whether key Congressional leadership and/or House/Senate members should be notified. The Office of Legislative Affairs will maintain a Contingency Notification Procedure identifying calls to be made.
 - d. Whether international notification should be made. The Office of External Affairs will provide a list of international components and point of contact listing, as well as place the required calls.
 - e. Determination of potential legal implications.
 - f. Necessary involvement of other agencies.
 - g. Whether further notification of external persons or communities is appropriate.
 - h. The need for further statements or briefings to the media.

VI. ROLES AND RESPONSIBILITIES

A. ADMINISTRATOR

1. The Administrator has the option of appointing an internal or external mishap investigation board for Type A mishaps, high-visibility mission failures, and high-visibility close calls. If the Administrator declines to appoint a board, the AA/SMA will appoint the board.
2. The Administrator may activate a HCAT to oversee the investigation and control the dissemination of accident investigation information.
3. The Administrator may choose to designate a Senior Agency Official in Washington.

B. ASSOCIATE ADMINISTRATOR FOR SPACE FLIGHT (AA/OSF)

The AA/OSF, or designated representative:

1. Declares whether a SFO mishap, mission failure, or high-visibility close call is a SFO contingency based on the recommendation of the reporting organization.
2. Notifies the AA/SMA of any Type A or Type B mishap, any high-visibility mission failure, or any other high-visibility mishap or close call.
3. Determines, in coordination with the AA/SMA, if an unplanned occurrence or event constitutes a mission failure.
4. Identifies who will initiate the mishap response telephone conference and lead the discussion at the conference.
5. Reports preliminary information concerning the mishap and the results of the mishap response telephone conference to the HCAT.
6. Appoints mishap investigation board for SFO-related Type A mishaps, mission failures or high-visibility close calls when the Administrator and the AA/SMA have declined to do so.

C. SENIOR AGENCY OFFICIAL IN WASHINGTON (SAO-W)

During a declared SFO contingency, the Administrator may choose to designate a SAO-W as the Agency's liaison with the Administration and other outside entities. The SAO-W will be provided to the HCAT and anyone else involved in the Headquarters SFO mishap response activities as soon as practical. The SAO-W:

1. Handles inquiries from the Administration or other outside entities. This function is complimentary to the responsibilities of the PAO member of the HCAT and the NASA Newsroom.
2. Makes public statements for the Agency as directed by the Administrator. Nominally, the Administrator or his/her designee will make all public statements from the site of the HCAT base of operations.
3. Ensures that the mishap/contingency Congressional notification procedure in place within the Office of Legislative Affairs is appropriately implemented. The SAO-W will assist key officials in the Executive Branch when delegated by the Administrator or the HCAT Coordinator.

D. HEADQUARTERS CONTINGENCY ACTION TEAM (HCAT) MEMBERSHIP

For declared SFO contingencies, the HCAT members are:

Code	Office	Name
A	Administrator	Mr. O'Keefe
AD	Deputy Administrator	Mr. Gregory
AA	Chief of Staff and White House Liaison	Mr. Stadd
AA	Deputy Chief of Staff	Dr. Pace
AE	Chief Engineer	Mr. Bradley
AI	Associate Deputy Administrator	Dr. Greenfield
AM	Chief Health and Medical Officer	Dr. Williams
G	General Counsel	Mr. Pastorek
I	Assistant Administrator for External Relations	Mr. Schumacher
L	Assistant Administrator for Legislative Affairs	Mr. Horner
M	Associate Administrator for Space Flight	Mr. Readdy
M	Assistant Associate Administrator for Crew Health and Safety*	Dr. Davis*
M-1	Deputy Associate Administrator for International Space Station and Space Shuttle Programs (HCAT Coordinator)	Maj. Gen. Kostelnik
M-1	Senior Systems Integration Manager (Acting) for International Space Station*	Mr. Buzzard*
M-1	Senior Systems Integration Manager (Acting) for Space Shuttle*	Mr. Counts*
M-2	Assistant Associate Administrator for Policy and Planning*	Ms. Diaz*
M-3	Assistant Associate Administrator for Space Communications*	Mr. Spearing*
M-5	Assistant Associate Administrator for Launch Services*	Ms. Poniatowski*
P	Assistant Administrator for Public Affairs	Mr. Mahone
Q	Associate Administrator for Safety and Mission Assurance	Mr. O'Connor
X	Director, Office of Security Management Standards	Mr. Saleeba

* Additional HCAT member assigned depending on SFO program/project affected by declared contingency.

The HCAT shall remain in operation until released by the Administrator.

E. HCAT COORDINATOR

The Deputy Associate Administrator for International Space Station and Space Shuttle Programs, or designee, coordinates the HCAT. The Coordinator:

1. Convenes, as directed, the HCAT. Establishes the location of the meeting or teleconference. If a teleconference is required, makes telecommunications arrangements through the NASA Conferencing Service.
2. Activates an OSF Headquarters Action Center to track the status of the investigation and control the dissemination of accident investigation information.
3. Initiates the mishap response telephone conference, if directed by the AA/OSF.
4. Ensures that the HCAT members, and other NASA personnel listed in Appendix B, are kept informed of the on-going contingency status and any direction given by the Administrator.
5. Keeps Appendix B contact information current on the HCAT members, as specified above, to constitute the HCAT when directed by the Administrator.
6. Distributes the International Components and Points of Contact listing maintained by the Office of External Relations (Code I) to the HCAT.
7. Serves as a liaison and point of contact for other NASA Headquarters organizations.
8. Provides the Administrator with a list of potential candidates for participation in an investigation board, when requested.
9. Provides the Senior Agency Official in Washington (SAO-W) with required support and ensures appropriate communication between the SAO-W and the HCAT.

F. ASSISTANT ADMINISTRATOR FOR PUBLIC AFFAIRS (AA/PAO)

The Public Affairs Office (PAO) supports the OSF Headquarters Action Center, the on-site investigation, the lead Center investigation team, and the accident investigation board. Specifically, the AA/PAO:

1. Provides the AA/OSF with copies of any impounded PAO-generated video, audio, or still photography related to the OSF contingency, as appropriate.
2. Participates in the mishap response telephone conference and the HCAT.
3. Advises the AA/OSF and the Administrator on appropriate dissemination of information.
 - a. Notifies the White House Press Office.
 - b. Coordinates NASA TV coverage/commentary including the continuation/discontinuation of NASA network communications over NASA TV.
 - c. Expedites approval/coordination of the initial statement to the media.
 - d. Coordinates information distribution to NASA Center newsrooms and over the Internet.
6. Manages news queries related to the OSF contingency and coordinates news releases with the AA/OSF, Deputy AA for ISS & SS Programs or appropriate AAA, Center Director(s), and Program Manager(s).
7. Attends (as a non-voting member), when requested by the AA/OSF, mishap investigation board meetings, coordinating information to be released and arranging media briefings.

G. ASSOCIATE ADMINISTRATOR FOR SAFETY AND MISSION ASSURANCE (AA/SMA)

The Associate Administrator for Safety and Mission Assurance (AA/SMA):

1. Advises the Administrator and AA/OSF on an appropriate course of action.
2. Serves as the appointing official and approving official for Type A mishap investigation boards directed by the Administrator, or for those high visibility SFO-related mishaps, including high-visibility mission failures, or high-visibility mishaps or close calls that the AA/SMA may select.

3. Concurs with the membership of an AA/OSF-appointed mishap investigation board and serves as the approving official for its report.
4. Participates or designates a NASA official to serve as the ex-officio member of the mishap investigation board.
5. Participates in the mishap response telephone conference and on the HCAT.
6. Provides support staff for the OSF Action Center.

H. ASSISTANT ADMINISTRATOR FOR EXTERNAL RELATIONS (AA/ER)

The Assistant Administrator for External Relations (AA/ER) will support the OSF Action Center, the on-site investigation, the Center investigation team, and the mishap investigation board. Specifically, the AA/ER:

1. Notifies members of the Administration including U.S. Department of State of the contingency and actions being taken.
2. Notifies all International Partners of the contingency and actions being taken.
3. Provides the AA/OSF with a single point of contact who will act as a liaison to the OSF during the contingency.
4. Provides the AA/OSF with copies and analyses of any international agreements that might be impacted by the contingency.
5. Works with the AA/OSF and Assistant Administrator for Legislative Affairs to brief members of the Administration and U.S. Congress on the impact of the contingency and actions being taken on international agreements.
6. Attends, as a non-voting member, when requested by the AA/OSF, mishap investigation board meetings and coordinates information flow on the investigation to International Partners.
7. Informs the State Department of arrangements necessary if Space Shuttle, Space Station, or other OSF-related space hardware elements have or will enter foreign territory.

I. OSF CENTER DIRECTORS

The Directors of the Johnson Space Center (JSC), Kennedy Space Center (KSC), Marshall Space Flight Center (MSFC), and Stennis Space Center (SSC) provide support to the HCAT and the AA/OSF for SFO-related mishaps. The Center Directors:

1. Notify the AA/OSF, or designated representative, within 60 minutes of SFO-related mishaps that occur at their Centers, with their contractors, or during activities for which their Centers are responsible.
2. Notify the AA/SMA of any Type A or B mishap, any high-visibility mission failure, or high-visibility close call.
3. Take immediate action to limit further damage or injury following a mishap.
4. Respond to, support, and/or investigate SFO-related mishaps, mission failures, or close calls, as directed by the AA/OSF.
5. Initiate the mishap response telephone conference when directed to do so by the AA/OSF (see Appendix E).
6. Appoints an investigation board for Type B mishaps, incidents, or Type A mishaps as delegated by the Administrator or the AA/OSF in coordination with the AA/SMA.
7. Support program or institutional contingency simulations that demonstrate the Center's capability to support OSF-related contingencies.
8. Provide casualty notification and support of next of kin of NASA employees.

9. Establish working groups appropriate to the Center's areas of responsibility and maintain lists of working group members. The working group lists will name acting chairpersons and specialists qualified to participate in contingency investigations. The lists will be provided by the Field Centers to the Board Chairperson upon board activation.
10. Submit to the Deputy Associate Administrator for ISS and Space Shuttle Programs (NASA/M-1) the name of the Center points of contact to be notified when the CAP is to be implemented.

J. OSF PROGRAM MANAGERS

OSF Program Managers:

1. Conduct a program contingency simulation at least every 18 months to exercise the Agency Contingency Response Plan.
2. Take appropriate actions to minimize losses, and preserve evidence, should a contingency occur.
3. Manage the mishap/contingency situation until a formal mishap investigation board is established.

K. AGENCY CHIEF HEALTH AND MEDICAL OFFICER

The Agency Chief Health and Medical Officer is responsible for directing, overseeing, and administering the health and medical aspects of mishap and close-call reporting, investigating, and recordkeeping.

L. NON-OSF NASA CENTER

Non-OSF NASA Centers are required to report mishaps and close calls involving SFO-related programs (i.e., hardware, software, and/or personnel). The non-OSF Center Director will notify the OSF program manager, Deputy AA for ISS and Space Shuttle Programs or appropriate OSF Assistant Associate Administrator. They will in-turn notify the AA/OSF. Note that the initial mishap reporting criteria, of within 60 minutes, is to be followed.

M. NASA CONTRACTOR

NASA contractors are required to report mishaps and close calls involving OSF-related programs (i.e., hardware, software, and/or personnel) to the extent specified in their contracts. The reporting process will be through the government Contracting Officer Technical Representative (COTR). The COTR will in-turn notify the AA/OSF, through the respective OSF Program Manager and/or OSF Center Director. The initial mishap reporting criteria is to be followed.

VII. WRITTEN REPORTING

- A. Unless otherwise directed by the Administrator, the AA/OSF will provide, within 24 hours following the beginning of the SFO mishap/contingency, a written mishap/contingency summary report which will include, at a minimum, the following information:
 1. Description of the mishap.
 2. Effect of the mishap.
 3. Principle actions taken following the incident.

4. Status of disposition or resolution of the impacts resulting from the mishap/contingency.
- B. Upon approval by the Administrator, this report will be provided to Congressional and Executive Branch offices by the individuals designated in Appendix B of this plan.
 - C. Other written reports will be provided upon request of the Administrator.

VIII. REFERENCE CONTINGENCY TIMELINE

Figure 1 shows pictorially the general sequence and timing of actions related to mishap reporting and the notification of an OSF contingency.

REFERENCE CONTINGENCY TIME LINE (REACTION SEQUENCE)

KEY: <u>ACTION</u> ACTIONEE

SIG. EVENT CTR. DIR. OR PROG. MANAGER	CONTINGENCY DETERMINATION AA/OSF	MISHAP RESPONSE TELECON RESPONSIBLE CTR. DIR. OR PROGRAM MANAGER	ADMINISTRATOR'S WRITTEN REPORT AA/OSF	ACCIDENT BOARD SELECTION See Below
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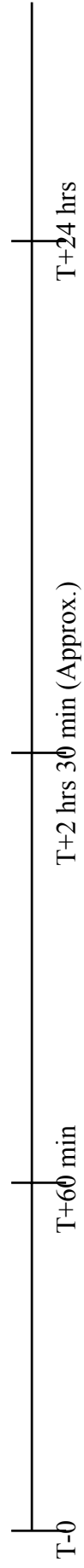
Who Selects:
 TYPE A: A or AA/OSF
 TYPE B/C: CTR DIR
 INCIDENT: CTR DIR
 MSN FAILURE: A or AA/OSF
 CLOSE CALL: AA/OSF

AA/OSF WILL:
 - NOTIFY THE ADMINISTRATOR AND AA/SMA
 - ACTIVATE HQS/CENTER CAPS
 - IDENTIFY RESPONSIBLE CENTER OR PROGRAM MANAGER
 - INITIATE HQS NOTIFICATION
 - NAME HQS SPOKESPERSON
 - APPROVE PRESS RELEASES

CENTER DIRECTOR OR PROGRAM MANAGER WILL:
 - BRIEF MISHAP TYPE
 - BRIEF MISHAP DETAILS

DAA FOR ISS/SS Programs or Appropriate AAA:
 - RECOMMEND INVESTIGATION BOARD SELECTION PROCESS

AA/OSF WILL:
 - ESTABLISH LONG-TERM RESPONSIBILITIES AND THE NEED FOR HQS CONTINGENCY ACTION TEAM ACTIVATION
 - ANNOUNCE BOARD APPOINTING OFFICIAL
 - DIRECT CENTERS TO PROVIDE WORKING GROUP LISTS
 - PARTICIPATE IN ADMINISTRATOR'S HQS CAT, IF ACTIVATED



- DEFINITIONS:**
1. SIG. EVENT: SIGNIFICANT EVENT
 2. CAP: CONTINGENCY ACTION PLAN
 2. CAT: CONTINGENCY ACTION TEAM
 3. CTR. DIR.: CENTER DIRECTOR
 4. AA/OSF: ASSOCIATE ADMINISTRATOR FOR THE OFFICE OF SPACE FLIGHT

Figure 1

APPENDIX A

NASA MISHAPS AND CLOSE CALLS

DEFINITIONS (from NPG 8621.1)

A. **NASA Mishap**. An unplanned event that results in injury to non-NASA personnel caused by NASA operations; damage to public or private property (including foreign property) caused by NASA operations; occupational injury or occupational illness to NASA personnel; damage to NASA property caused by NASA operations; or mission failure. NASA mishaps are categorized as follows:

1. **Type A Mishap**. A mishap causing death and/or damage to equipment or property equal to or greater than \$1 million. Mishaps resulting in damage to aircraft, space hardware, or ground support equipment that meet these criteria are included, as are test failures in which the damage was unexpected or unanticipated.
2. **Type B Mishap**. A mishap resulting in permanent disability to one or more persons, hospitalization (within a 30-day period from the same mishap) of three or more persons, and/or damage to equipment, or property equal to or greater than \$250,000 but less than \$1 million. Mishaps resulting in damage to aircraft, space hardware, or ground support equipment that meet these criteria are included, as are test failures in which the damage was unexpected or unanticipated.
3. **Type C Mishap**. A mishap resulting in damage to equipment or property equal to or greater than \$25,000 but less than \$250,000, and/or causing occupational injury or illness that results in a lost workday case. Mishaps resulting in damage to aircraft, space hardware, or ground support equipment that meet these criteria are included, as are test failures in which the damage was unexpected or unanticipated.
4. **Mission Failure**. A mishap of whatever intrinsic severity that, in the judgment of the Enterprise Associate Administrator and the Associate Administrator for Safety and Mission Assurance, prevents the achievement of primary NASA mission objectives as described in the mission operations report or equivalent document.
5. **Incident**. A mishap consisting of personal injury of less than Type C Mishap severity but more than first-aid severity and/or property damage equal to or greater than \$1000, but less than \$25,000.

B. **Close Call**. A situation or occurrence with no injury, no damage or only minor damage (less than \$1,000), but possesses the potential to cause any type mishap, or any injury, damage, or negative mission impact. (A close call is not considered a mishap, but the mishap reporting, investigation, and recordkeeping and recurrence control guidelines will be followed.)

APPENDIX A

CONTINGENCY CRITERIA SUMMARY

Classes of Unexpected Events	Damage to Property, Facilities, or Equipment	<i>AND/OR</i>	Injury/Death	Investigation/ Analysis
Type A Mishap	Equal to or greater than \$1M		Death	Administrator or AA/SMA (AA/OSF if Administrator and AA/SMA decline) appoints mishap investigation board*
Type B Mishap	Equal to or greater than \$250K but less than \$1M		Permanent disability of 1 or more persons, or hospitalization of 3 or more persons.	AA/OSF or Center Director appoints investigation *
Type C Mishap	Equal to or greater than \$25K but less than \$250K		Occupational injury or illness that results in a lost workday case.	Center Director appoints investigator or investigation team depending on significance of mishap*
Incident	Equal to or greater than \$1,000 but less than \$25K		Injury of less than Type C Mishap severity but more than first-aid severity.	Same as Type C mishap*
Mission Failure	A mishap of whatever intrinsic severity that prevents the achievement of primary NASA mission objectives as described in the Mission Operations Report or equivalent document.			An investigation board is required and Type A or B Mishap investigation procedures are followed*
Close Call**	No equipment/ property damage equal to or greater than \$1,000.		No injury and no significant interruption of productive work	Investigated in accordance with its potential*

* If event involves more than one Center or has significant public interest, the AA/OSF, or delegated agent, may recommend that the Administrator activate the International Space Station and Space Shuttle Mishap Interagency Investigation Board .

** Event that possesses high severity potential for any of the previous types of mishaps.

APPENDIX A
MEDICAL CODES

Medical Codes :

- A. **Med Code 0:** Patient deceased or severely injured beyond expectation of survival.
- B. **Med Code 1:** Condition critical, patient requires immediate care and evacuation.
- C. **Med Code 2:** Condition fair to poor, patient's need for care is not so acute, but will require care before evacuation.
- D. **Med Code 3:** Condition good to fair, patient with injuries that do not require hospitalization, some medical care may be needed but not time critical.

SFO-CONTINGENCY SITUATION CHECKLIST

1. Following the OSF Mishap Response teleconference, and based on consultation with the AA/OSF, the Administrator will determine if the contingency situation warrants activation of the Agency Contingency Action Plan for Space Flight Operations.
2. If the Agency Contingency Action Plan for Space Flight Operations is activated, the HCAT Coordinator (Deputy AA for International Space Station and Space Shuttle Programs, M-1) will be directed to convene a meeting or a teleconference of the HCAT with the following members:

<u>HCAT Members</u>	<u>Name</u>
Administrator	Mr. Sean O'Keefe
Deputy Administrator	Mr. Frederick Gregory
Associate Deputy Administrator	Dr. Daniel R. Mulville
Chief of Staff & White House Liaison	Mr. Courtney Stadd
Deputy Chief of Staff	Dr. Scott Pace
General Counsel	Mr. Paul Pastorek
Assistant Administrator for External Relations,	Mr. Schumacher
Assistant Administrator for Legislative Affairs ,	Mr. Charles T. Horner
Associate Administrator for Space Flight	Mr. William Readdy
Deputy Associate Administrator for ISS & Space Shuttle Programs & HCAT Coordinator	Maj. Gen. Michael Kostelnik
Assistant Administrator for Public Affairs	Mr. Glenn Mahone
Associate Administrator for Safety & Mission Assurance	Mr. Bryan D. O'Connor
Chief Engineer	Mr. Theron M. Bradley Jr.
Chief Health and Medical Officer	Dr. Richard Williams
Director, Office of Security Management	Mr. Dave Saleeba

SFO-CONTINGENCY SITUATION CHECKLIST

3. Other notifications that may be made (dependent on required contingency action) include:

<u>NASA Headquarters</u> Assistant Associate Administrator for Launch Services	<u>Name</u> Ms. Karen Poniatowski
Assistant Associate Administrator for Space Communications	Mr. Bob Spearing
Assistant Associate Administrator for Policy and Planning	Ms. Angela Phillips Diaz
Assistant Associate Administrator for Crew Health and Safety	Dr. Jeffrey Davis
Special Assistant for Program Integration	Mr. Stephen Pitotti
Sr. Systems Integration Manager Station for International Space (Acting)	Mr. Frank Buzzard
Sr. Systems Integration Manager for Space Shuttle (Acting)	Mr. Parker Counts
Manager, SSP Planning and Evaluation Manager, ISS Planning and Evaluation	Mr. Bobby Watkins Mr. Al Sofge
<u>NASA Centers</u> KSC Director	<u>Name</u> Mr. Roy D. Bridges
JSC Director	Mr. Jefferson D. Howell Jr.
MSFC Director	Mr. Arthur G. Stephenson
SSC Director	Mr. William W. Parsons
Manager, Space Shuttle Program	Mr. Ronald D. Dittmore
Manager Space Station Program	Mr. William H. Gerstenmaier
<u>As Required:</u> DFRC Director	Kevin Petersen
GSFC Director	Alphonso V. Diaz
ELV & Payload Carriers Office	Steve Francois
DDMS Commander	Col. David K. Dingley
45th Space Wing, Patrick AFB, FL	
30th Space Wing, Vandenberg AFB, CA	

APPENDIX B

SFO-CONTINGENCY SITUATION CHECKLIST

4. The Administrator will direct the HCAT to review the specifics of the OSF contingency situation (usually within 2 hours of the initial notification that there is an OSF contingency).
5. The AA/OSF will determine if the NASA Administrator will appoint an internal Investigation Board or activate the external International Space Station and Space Shuttle Mishap Interagency Investigation Board.
6. The Administrator determines, based on the information known at that time, if any phone notifications should be made before the HCAT meets.

	<u>RESPONSIBLE NASA PERSON (AND BACKUP)</u>	<u>TYPE A OR B MISHAPS OR MISSION FAILURES</u>	<u>TYPE C MISHAPS INCIDENTS, OR CLOSE CALLS</u>
a. White House Situation Room	Mr. Readdy	Duty Officer	
b. White House	Mr. O'Keefe (Mr. Gregory)	President Bush Andrew Card, Jr.	Andrew Card, Jr.
c. Office of the Vice President	Mr. O'Keefe (Mr. Gregory)	Vice Pres. Cheney Jenny Mayfield	Jenny Mayfield
d. Cabinet Secretary	Mr. Stadd (Dr. Pace)	Albert Hawkins	Albert Hawkins
e. National Security Council	Mr. Stadd (Dr. Pace)	Dr. Condolezza Rice Frank Miller	
f. OSTP	Dr. Pace	Dr. John Marburger	Dr. Shana Dale
g. OMB	Mr. Stadd (Dr. Pace)	Mr. Richard Russell	Mr. Richard Russell
h. Other notifications to be considered, as required.		Mitchell Daniels	
1. DOD:	Office of the Secretary		Col. Roy Byrd
	Sec. of the Air Force		Col. Phil Breedlove
2. Dept. of State: Operations Rm.	Operations Rm.		Sr. Watch Officer

*(There are 2 NASA Office of External Relations Staff present at the Department of State Operations Room during each launch. They may be reached by asking for either the Shuttle Task Force or Task Force 2.)

Note: Crew Families notification is by Mr. Jefferson D. Howell, Jr.

SFO-CONTINGENCY SITUATION CHECKLIST

7. Determine, with the advice of the Assistant Administrator for Legislative Affairs (Code L), key members of Congress to be contacted personally by the Administrator, Deputy Administrator, or AA/OSF. Consider the following:

TYPE A OR B MISHAPS OR MISSION FAILURES

SENATE
Sen. Hollings
Sen. McCain
- Jeanne Bumpus
Sen. Mikulski
- Jenny Luray
Sen. Bond
Sen. Wyden
Sen. Allen
- Robert Carey

TYPE C MISHAPS, INCIDENTS OR CLOSE CALLS

Jean Toal Eisen
Floyd DesChamps

Paul Carliner

Jon Kamarck
Jean Toal Eisen
Floyd DesChamps

Dave Goldston
Bob Palmer

Ken Monroe
Bill Adkins
Dick Obermann
Tim Peterson
Michelle Burkett

HOUSE

Rep. Boehlert
Rep. Hall
- Dick Obermann
Rep. Rohrabacher
- Rick Dykema
Rep. Gordon
Rep. Walsh
Rep. Mollohan

8. International Contacts (International Components and Points of Contact will be maintained and provided by NASA/Code I). The Administrator determines, based on the information known at that time and if the situation is related to the International Space Station program, if any phone notifications should be made to the International Partners Heads of Agency; if so, the following contact list is recommended:

- a. Russian Aviation and Space Agency, Mr. Yuri Koptev, General Director; Aleksandr Medvedchikov,
- b. Canadian Space Agency, For Class A or B Mishaps: Dr. Marc Garneau, President. For Class C Mishaps: Mr. Savi Sachdev, Director General Space Systems. Mr. Benoit Marcotte, Space Station Program Manager & Operations and Utilization; or Mr. Michel Vachon, Director General Canadian Astronaut Program
- c. European Space Agency, Mr. Antonio Rodota, Director General
- d. National Space Development Agency of Japan, Mr. Shuichiro Yamanouchi, President.

APPENDIX B

SFO-CONTINGENCY SITUATION CHECKLIST

9. Following White House, DoD/State Department, Congressional, and International Partner (if appropriate) notifications, prepare a statement for the media. (Note: Usually this press release will follow the OSF press release that is required to be released within one hour of the OSF-related mishap. It will be more detailed and will identify how NASA will investigate the mishap.)
10. The Administrator may task the HCAT Coordinator (NASA/M-1, Maj. Gen. Kostelnik) to activate a Headquarters Action Center to track and monitor actions associated with the OSF contingency. If this happens, Maj. Gen. Kostelnik will be responsible for the day-to-day management of the action center and the roles and responsibilities that it will have.

APPENDIX C
ADMINISTRATOR'S
SFO MISHAP INVESTIGATION BOARD
APPOINTMENT CHECKLIST

Within 24 hours:

1. Confer with the AA/OSF and AA/SMA on the severity of the mishap and the need to activate the Agency Contingency Action Plan for Space Flight Operations.
2. Appoint a board chairperson and members of the board. AA/SMA concurrence is required for all board members. Chairperson & member qualifications:
 - No direct connection with mishap operation.
 - Federal employees (except contractor physician allowed) are required.
 - Members of another Federal agency are allowable.
 - One member must have completed NASA Mishap Investigation Course or equivalent.
 - A minimum of five members, including chairperson is required for a Type A Mishap. Odd number required. (Minimum of three required for Type B Mishap.)
3. Appoint local safety representative and local General Counsel as advisors to board.
4. Appoint NASA or resident NASA contractor physician as member or advisor to board if death, injury, or substantial human factors involved. Must be a flight surgeon if flight crew involved.
5. Board members, staff, advisors, etc. are relieved of other duties while supporting the board.
6. Request DOD participation in the board of investigation, if appropriate.
7. Convene the board as early as possible, consistent with any required support of on-going flight operations.
8. Act as focal point and appointing authority for NASA participation in joint NASA/DOD boards, a responsibility delegated to the AA/OSF by the AA/SMA.
9. AA/SMA may participate or may designate a NASA official to serve as an ex-officio board member.
10. Any person may be appointed as observer, advisor, or consultant.
11. Turn over contingency investigation responsibility to chairperson.

APPENDIX D

INTERNATIONAL SPACE STATION AND SPACE SHUTTLE MISHAP INTERAGENCY INVESTIGATION BOARD DESCRIPTION AND PURPOSE

1. GUIDELINES

In the case of a high-visibility, mission-related Shuttle mishap the NASA Administrator may activate the International Space Station and Space Shuttle Mishap Interagency Investigation Board. Board activation is anticipated for events involving serious injury or loss of life, significant public interest, etc. The board will consist of seven members, and be supported by OSF Headquarters and technical consultants as required.

2. ACTIVATION

The recommendation for the NASA Administrator to activate this Board would normally be made at either the AA/OSF-directed Mishap Response Teleconference or as a decision at the Administrator's HCAT meeting and/or teleconference.

3. MEMBERSHIP

Board Members

1. USAF Chief Of Safety, Maj. Gen. Ken W. Hess
2. FAA Office Of Accident Investigation, Mr. Steven B. Wallace
3. Commander, 14th Air Force, Maj. Gen. Michael A. Hamel
4. Commander, Naval Safety Center, Rear Adm. Stephen Turcotte
5. DOT Chief of Aviation Safety Division, Dr. James N. Hallock
6. Commander, Air Force Flight Test Center, Brig. Gen. Wilbert D. Pearson
7. NASA Field Center Director or NASA Program Associate Administrator (Non-OSF or Non-Mission-Related)

4. BOARD SUPPORT

a. Standing Board Support Personnel

(1). Ex-Officio Member: NASA, Associate Administrator for Safety and Mission Assurance, Mr. Bryan D. O'Connor

(2). Executive Secretary: NASA Chief Engineer, Mr. Theron Bradley Jr.

b. Additional Personnel Support. The Board may designate consultants, experts, or other government or non-government individuals to support the Board as necessary.

c. Task Force Team Support. Within 72 hours of activation of the Interagency Board, the AA/OSF, the AA/SMA, the NASA Field Center Director or NASA Program Associate Administrator (Non-OSF or Non-Mission-Related), and the NASA Chief Engineer will meet to select and recommend Task Force Team members to the Mishap Board Chairman. Upon approval by the NASA Administrator, the Task Force Team members will convene and meet with the appropriate Working Group Team Leads.

The Task Force Team will support the International Space Station and Space Shuttle Mishap Interagency Investigation Board and they will:

- (1) Be the formal interface between the Board and the activated Working Groups.
- (2) Monitor, collect, document, and file the reports of the Working Groups activated to support the accident investigation.
- (3) Provide the accident investigation Board members with requested information and reports from the Working Groups
- (4) Assist the Board in the preparation of interim and final reports, as required.

5. BOARD RESPONSIBILITIES

The Board will:

- a. Conduct activities in accordance with direction from the NASA Administrator and the provisions of applicable NASA management instructions.
- b. Work with the NASA Administrator to schedule board activities, interim board reports, and submission of the final board report.
- c. Determine the facts, as well as the actual or probable causes of the Shuttle mishap in terms of primary cause, contributing cause(s), and potential cause(s) and to recommend preventive and other appropriate actions to preclude recurrence of a similar mishap. (The investigation will not be conducted or used to determine questions of culpability, legal liability, or disciplinary action.)
- d. Use the established NASA support structure of working groups, NASA Field Center Contingency Support Plans, and supporting facilities to conduct the investigation. (This includes staff advisors as required for expertise in areas such as public affairs, legal, medical, safety and security.)
- e. Activate the working groups appropriate to the mishap. (A consolidated list of NASA Center established working groups and their acting chairpersons will be provided to the Board Chairperson by the Office of Space Flight.)
- f. Obtain and analyze whatever evidence, facts, and opinions it considers relevant by relying upon reports of studies, findings, recommendations, and other actions by NASA officials and contractors or by conducting inquiries, hearings, tests, and other actions it deems appropriate. In so doing, it may take testimony and receive statements from witnesses. All elements of NASA will cooperate fully with the Board and provide any records, data and other administrative or technical support and services that may be requested.
- g. Impound property, equipment, and records to the extent that it considers necessary.
- h. Document findings in terms of (a) the primary cause(s) of the mishap, (b) contributing cause(s) and (c) potential cause(s); as well as pertinent observations.

i. Release mishap information and mishap investigation reports in accordance with applicable NASA management policies.

j. Develop recommendations for preventive and other appropriate actions. A finding may warrant one or more recommendations or it may stand alone.

k. Provide a final written report to the NASA Administrator.

APPENDIX E

Current As Of: 1/9/03

MISHAP RESPONSE TELEPHONE CONFERENCE CHECKLIST

1. **The responsible Center will initiate the mishap response telephone conference when the AA/OSF or delegated agent requests this action.**
2. As a start, the nucleus of the teleconference should include:
 - a. NASA HQ Points of Contact (POC):
 - (1) AA/OSF or delegated agent
 - (2) DAA/ISS and Space Shuttle Programs or delegated agent
 - (3) AA for the Office of Safety and Mission Assurance
 - (4) AA for the Office of Public Affairs
 - (5) Other staff, as appropriate
 - b. Responsible Center Director
 - (1) Program Manager(s)
 - (2) Other staff, as appropriate
3. Use the following sites and phone numbers to tie in the required participants for the Mishap Response Teleconference:

Note: For locations which are not staffed when the AA/OSF or delegated agent requests the Mishap Response Teleconference, the responsible Center will request in real-time a phone number to use for each of the required teleconferenced participants.

Location of teleconference

HQ Action Center (OSF-2)

(Note: Staffed only from T-3 hours prior to Shuttle launch through MECO.)

JSC MOD Action Center (Bldg 30, Room 225A)

(Note: Staffed only as required.)

APPENDIX E

Current As Of: 1/9/03

MISHAP RESPONSE TELECONFERENCE CHECKLIST (CONTINUED)

Location of teleconference

KSC Launch Control Center (Room 1R29)

(Note: Staffed only from the start of Shuttle Launch Countdown (S0007) through MECO.)

KSC Space Station Contingency Room

(SSPF, Room 3036)

KSC Expendable Launch Services

(O&C Bldg, Room 2138)

(VAFB, Bldg 840, Room B107)

MSFC Shuttle Action Center

(Note: Staffed only from 30 minutes prior to start of tanking to Launch+30 minutes.)

SSC Emergency Control Center

(Note: Staffed only as required.)

DDMS DOD Support Ops Center

(Note: Staffed only from T-24 hours prior to Shuttle launch through Shuttle landing.)

GSFC Network Control Center

(Note: Staffed 24 hours a day.)

DFRC Executive Conference Room

(Note: Staffed only as required.)

Dept. of State Operations Room

(Note: Staffed only from about 1 hour prior to launch through MECO. Ask for the Shuttle Task Force or Task Force 2.)

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Distribution List for Agency Contingency Action Plan

NASA Headquarters

A/	S. O'Keefe	M-1/	P. Counts (Acting)
AD/	F. Gregory	M-1/	F. Buzzard (Acting)
AA/	C. Stadd	M-1/	B. Watkins
AA/	S. Pace	M-1/	A. Sofge
AE/	T. Bradley Jr.	M-1/	S. Chandler
AM/	R. Williams	M-1/	W. Hill
AI/	M. Greenfield	M-2/	A. Diaz
B/	K. Winter (Acting)	M-3/	B. Spearing
C/	T. Sullivan (Acting)	M-5/	K. Poniatowski
G/	P. Pastorek	P/	G. Mahone
I/	J. Schumacher	Q/	B. O'Connor
IH/	J. McCarter	Q/	W. Bihner
L/	C. Horner	U/	M. Kicza
M/	W. Readdy	X/	D. Saleeba
M-1/	M. Kostelnik		

White House

Dr. John H. Marburger, III
Executive Office of the President
Director, OSTP
Washington DC 20502

OSTP/S. Dale
OSTP/B. Alexander

Centers

JSC/NA/Mr. Linbeck	KSC/QA-D/Mr. Gordan
MV/Mr. Brown	PH-H/Mr. Long
MA/Mr. Dittamore	MK/Mr. Halsell
Mr. Harris	MSFC/MP71/Mr. Pea
Ms. Ham	/Mr. Murphy
MA2/Mr. Whittle	SA01/Mr. McCool
DA82/Ms. Marrs	SSC/QA00/Mr. Arnold
OA/Mr. Gerstenmaier	Ms. Foley
OE/Mr. Berend	Mr. Smiles
	USA/Ms. Pride