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Hearing on

**NASA's ASTRONAUT HEALTH CARE SYSTEM
RESULTS OF AN INDEPENDENT REVIEW**

before the

**Subcommittee on Space and Aeronautics of the
Committee on Science and Technology,
United States House of Representatives**
Hon. Mark Udall,
Chairman of the Subcommittee, presiding

10:10 a.m. through 12:30 p.m.
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1 P R O C E E D I N G S

2 CHAIRMAN UDALL: Good morning to all of you.

3 This hearing will come to order.

4 I want to first welcome all of our witnesses to
5 today's hearing. We appreciate your service to the Nation
6 and your assistance to this Subcommittee as we carry out
7 our oversight responsibilities.8 In particular, I would like to thank Colonel
9 Bachmann and his review committee for their efforts to
10 provide NASA and the Congress with an independent
11 assessment of NASA's Astronaut Health Care System.12 I would also like to thank Administrator Griffin
13 for his willingness to ask for such a review. I think it
14 was a good decision that reflects well on the agency.15 It is clear to me and I think all Americans that
16 NASA's astronauts represent the Nation's best and
17 brightest. We all respect their skill and bravery. In
18 carrying out their challenging missions, they often make it
19 look so easy that we sometimes forget that they are human
20 beings who face the same medical and behavioral issues that
21 the rest of us have to deal with, along with the added
22 rigors of high-stress jobs, long hours of training,

1 extended absences from families and friends in high-risk
2 space flights. It is, thus, critically important that NASA
3 ensure that the astronauts be provided with the best
4 possible medical and behavioral care throughout their
5 careers.

6 In addition, NASA astronauts, flight surgeons,
7 and support personnel need to be confident that the lines
8 of communication within the agency are open and responsive,
9 so that concerns can be quickly identified and addressed in
10 a manner that maintains the level of trust so vital to
11 safety and optimal performance. I don't think anyone
12 inside NASA would disagree with those goals.

13 That is why after reviewing Colonel Bachmann's
14 committee's report, I decided that this Subcommittee needed
15 to hold a hearing to examine the report's findings and
16 recommendations. However, my decision was not made for the
17 reasons you might think.

18 While there has been a great deal of attention
19 given to the finding related to alcohol use -- and I have
20 little doubt that there will be discussion of that finding
21 at today's hearing, too -- I think we do a real disservice
22 to the independent review committee if we ignore the

1 warning flags they are raising about the state of
2 communications within the agency on both medical and
3 behavioral matters affecting the astronauts.

4 Let me read just a few of the findings from the
5 report that I think should concern us all. "Many
6 anecdotes" -- and I am now quoting from the report -- "were
7 related that involved risky behaviors by astronauts that
8 were well known to the other astronauts, and no apparent
9 action was taken. Peers and staff feel ostracism if they
10 identify their own or other's problems."

11 To continue, quoting from the report, "Several
12 senior flight surgeons expressed their belief that their
13 medical opinions regarding astronaut fitness for duty,
14 flight safety, and mission accomplishments were not valued
15 by leadership other than to validate that all medical
16 systems were a go for an on-time mission completion.
17 Instances were described where major crew medical or
18 behavioral problems were identified to astronaut
19 leadership, and the medical advice was disregarded. This
20 disregard was described as demoralizing to the point where
21 they said they are less likely to report concerns of
22 performance decrement. Crewmembers raised concerns

1 regarding substandard astronaut task performance, which
2 were similarly disregarded."

3 "As the review progressed," again, I am quoting
4 from the report, "it became apparent that major
5 vulnerabilities underlying root causes and contributing
6 factors extend well beyond the specific medical aspects of
7 NASA operations. These issues are so ingrained and
8 long-standing that it will take senior leadership action to
9 remediate them. There is no periodic psychological
10 evaluation or testing conducted on astronauts. Once
11 selected as an astronaut candidate, astronauts have no
12 psychological evaluation for the remainder of their careers
13 unless selected for long-duration missions. Astronaut
14 medical and behavioral health care is highly fragmented."
15 That ends the quoting directly from the report itself.

16 And I don't think anyone can listen to those
17 findings and think all is well within NASA's Astronaut
18 Health Care System. This Subcommittee needs to hear from
19 Colonel Bachmann, the basis for his review panel's
20 findings. Equally important, the Subcommittee needs to
21 hear from NASA management, their plans for addressing the
22 concerns raised by the independent review, not just the

1 alcohol-related ones.

2 Whatever the merits of focusing the agency's
3 attention on trying to get employees to publicly verify or
4 refute reports of alcohol use that those employees had
5 provided in confidence to the independent review committee,
6 I think it runs the risk of unintentionally worsening a
7 communications environment at NASA in which, to quote the
8 independent review committee, "Peers and staff fear
9 ostracism if they identify their own or other's problems."

10 Instead it may be more appropriate to take the
11 disconnect, what is being said in private and what is being
12 said in public by NASA personnel, as another indicator that
13 the broader issues raised by the independent review
14 committee warrant close and sustained attention, and I
15 certainly hope that that will be the approach taken in the
16 days and weeks ahead.

17 We have a great deal to examine today. I again
18 want to welcome our witnesses, and I look forward to your
19 testimony.

20 The chair now is pleased to recognize the
21 gentleman from Florida, the Ranking Member, Mr. Feeney, for
22 an opening statement.

1 REPRESENTATIVE FEENEY: Well, thank you, Mr.
2 Chairman, and thank you for having this important hearing.

3 I want to tell you that it is important enough that the
4 Ranking Member of the Full Committee, the esteemed Mr.
5 Hall, is here. I offered to defer to let him give the
6 first opening speech, but he thought our weakest link ought
7 to go first.

8 [Laughter.]

9 REPRESENTATIVE FEENEY: We take the challenges
10 that NASA has in the behavioral and the physical and the
11 psychological well-being as very, very important, and this
12 is an opportunity both for oversight committees of
13 Congress, of NASA, and other outside experts to find ways
14 to dramatically improve, as we go forward, the well-being
15 of astronauts in a wide variety of areas.

16 After the Lisa Nowak incident earlier this year,
17 NASA Administrator Mike Griffin, to his credit, convened
18 the NASA Astronaut Health Care System Review Committee. I
19 want to thank this distinguished panel of aerospace medical
20 experts for their service. I also want to comment
21 Administrator Griffin for inviting independent review of
22 the health care system.

1 If we can put the report's sensationalistic
2 elements aside for a moment, the committee provided several
3 thoughtful recommendations to heighten the importance of
4 human factors to improve the monitoring of each astronaut's
5 physical and mental well-being. After the Shuttle was
6 retired, NASA's Constellation program will return Americans
7 to the Moon for extended stays. An astronaut's physical
8 and psychological well-being will be more important in the
9 future of America's space program and not less important.
10 So it is imperative to thoroughly examine this issue and
11 establish an astronaut health care system that properly
12 addresses future and not just current medical concerns.

13 I note that one of the challenges in going beyond
14 low-Earth orbit with human beings, even bigger perhaps than
15 the mechanical and technical and scientific challenges, are
16 the physiological challenges on astronauts that will spend
17 extended periods in space.

18 Unfortunately, the report's sensationalistic
19 element, specifically allegations of astronaut intoxication
20 shortly before space flight, ground out the remainder of
21 the report. Since the report's issuance in late July,
22 these allegations remain uncorroborated. No eye witness

1 has come forward to specifically state who, what, when, and
2 where. So far, this search for corroboration reveals the
3 shortcomings of relying on anonymous allegations.

4 And I know that Colonel Bachmann's committee had
5 its mission, and it did it well, and there are advantages
6 to having anonymous and voluntary people come forward, but
7 there are disadvantages, too. Anonymity can certainly
8 promote candor, but without corroboration, such allegations
9 often unfairly force good men and good women to prove a
10 negative.

11 My office has heard from astronauts and NASA
12 officials, all deeply devoted to human space flight and
13 highly credible, who adamantly deny this misbehavior
14 represents current or recent conduct. These people have
15 long-standing firsthand knowledge of the astronaut program
16 and simply state that alcohol influence during the
17 immediate preflight period does not exist. Because an
18 astronaut interacts with so many people during this period,
19 I find it difficult to believe that such behavior could go
20 undetected.

21 But I don't want the alcohol issue to detract
22 from a more troublesome finding that flight surgeons and

1 astronauts in general may be hesitant to report major crew
2 medical or behavioral problems because their concerns would
3 be disregarded or ignored.

4 James Oberg, a distinguished and respected space
5 commentator, followed up last month with a very thoughtful
6 story detailing inconsistent approaches to significant
7 astronaut health concerns. I want to applaud NASA for
8 being open to the committee's recommendations, and I join
9 the distinguished chairman of this Subcommittee in
10 suggesting that we focus on the future and how we can
11 improve astronaut safety and well-being. I think that is
12 the approach NASA should and will take.

13 This type of culture, formerly called a
14 "normalization of deviants" after the first Shuttle
15 disaster, has contributed now to two Shuttle accidents. It
16 cannot be allowed to flourish in the most demanding of
17 human endeavors; that is, human space flight. We have to
18 be ever vigilant against such behavior, and I am very much
19 appreciative to Chairman Udall for calling this hearing.

20 CHAIRMAN UDALL: Thank you, Mr. Feeney.

21 At this point, I am pleased to acknowledge the
22 presence of the chairman of the Full Committee, Chairman

1 Bart Gordon, at the hearing. I would like to ask unanimous
2 consent to recognize him for any remarks he would like to
3 make.

4 Without objection, so ordered.

5 Mr. Gordon?

6 REPRESENTATIVE GORDON: Thank you, Chairman
7 Udall.

8 Let me say that you and Ranking Member Feeney
9 have made my job a lot easier. You have summed it up very
10 well. I think there is a bipartisan interest, obviously,
11 in this issue, and although the alcohol issues got a lot of
12 the early publicity and certainly is something to be
13 concerned about, in all reports I think it indicates that
14 that was a situation that was an anomaly.

15 The bigger concern is, is there an openness, is
16 there a comfortableness within the NASA organization to
17 other issues of flight safety, and we just have different
18 testimony here.

19 I think that what I know is that there is
20 certainly smoke. Whether there is fire, we want to be able
21 to determine that today. I have no question that both
22 panels are of individuals of integrity, trying to do the

1 right thing, and I think this will be a healthy exercise
2 for NASA, but the real question is, is there that
3 comfortableness within the NASA flight safety operation
4 that allows everyone to step forward without feeling
5 somehow they are ostracized, without feeling somehow they
6 have been "demoralized," quoting the report, about prior
7 overlook.

8 So, again, welcome, and I think Mr. Feeney and
9 Mr. Udall have summed up our charge today, and I look
10 forward to hearing this testimony and some interaction
11 between members of the panels.

12 CHAIRMAN UDALL: Thank you, Chairman Gordon.

13 As Mr. Feeney noted, the Ranking Member, Mr.
14 Hall, is also present. I would like to ask unanimous
15 consent that he also be recognized for any opening remarks
16 he would care to make.

17 Without objection, so ordered.

18 REPRESENTATIVE HALL: Mr. Chairman, thank you,
19 and I thank you for doing what you are doing. I realize
20 that you had to do it. Bart Gordon is a fine chairman and
21 a great native Tennessean, and I admire him very much,
22 enjoy working with him.

1 But you know, I am so pro NASA and pro space and
2 pro Mike Griffin that it is just really something that
3 accusations sound more to me like someone that is wanting
4 to be quoted rather than something that might have happened
5 by our most red-white-and-blue members of public service at
6 any stage here, our very finest educated men and women that
7 put their life in the hands of those of us who like the
8 stick of dynamite that sends them off, just above and
9 beyond public servants, and I hate to even see a hearing on
10 something like this, but I understand the chairman. It is
11 something when you have these allegations, you have to hear
12 it. It is best to clear the air, and I hope we can do that
13 here.

14 I do want to thank you, Mr. Chairman, and I thank
15 the panelists for being here today to speak on this health
16 report, what I like to look at it as.

17 As most of you know, I have been a longtime
18 supporter of astronaut safety, and indeed, it has been my
19 primary goal in relation to the U.S. space program. I have
20 argued for years that we need to do everything we can to
21 ensure that the men and women who are launched into outer
22 space are prepared and equipped with everything they need

1 to do the job and return to Earth safely. I believe this
2 is also the goal of each and every person working on the
3 Shuttle program at NASA.

4 In the wake of the Columbia disaster, Congress
5 held a series of investigations aimed at addressing the
6 problems that led to the accident, and these investigations
7 culminated with the CAIB report that outlined suggestions
8 for NASA. So I know that Administrator Griffin and his
9 team have taken these suggestions seriously and have
10 implemented a series of changes at NASA to address the
11 concerns. I don't look forward to the hearing, but I do
12 look forward to staying here and listening to the
13 testimony, particularly from the Administrator, on the
14 progress of these changes and what NASA can do to continue
15 to improve as we move forward.

16 As my good friend, Representative Feeney, points
17 out, we need to continue to be vigilant and as this
18 chairman is going to do. I know him from knowing him and
19 his family before him that they will address problems and
20 may meet problems head on at NASA and everywhere else, so
21 that there is a culture of safety that prevails.

22 I look forward to the hearing, and I yield back

1 my time. I thank the chair.

2 CHAIRMAN UDALL: I thank the Ranking Member for
3 his always insightful remarks and look forward to his
4 participation further in the hearing.

5 If there are other Members who wish to submit
6 additional opening statements, your statements will be
7 added to the record.

8 Without objection, so ordered.

9 At this time, I would like to turn to the panel
10 and recognize our first panel of witnesses. I would like
11 to introduce everybody on the panel, and then we will come
12 back and start with Colonel Bachmann.

13 I did want to initially introduce Colonel Richard
14 E. Bachmann who is appearing before the Subcommittee in
15 his capacity as the chair of the NASA Astronaut Health Care
16 System Review Committee. To Colonel Bachmann's left is Dr.
17 Richard S. Williams who is the Chief Health and Medical
18 Officer at NASA. Further to the left on the table is Dr.
19 Ellen Ochoa who is the director of Flight Crew Operations
20 at NASA, and our last witness on the first panel, we have
21 Mr. Bryan O'Connor, the chief of Safety and Mission
22 Assurance at NASA. A very esteemed and highly qualified

1 panel, welcome to all of you.

2 As our witnesses should know, spoken testimony is
3 limited to 5 minutes each, after which Members of the
4 Subcommittee -- and in this case, the Full Committee --
5 will have 5 minutes each to ask questions.

6 So we will begin with Colonel Bachmann. Thank
7 you for being here, and the floor is yours, Colonel.

8 COLONEL BACHMANN: Mr. Chairman and distinguished
9 Members of the Committee, good morning.

10 It is truly an honor for me to speak to you today
11 about the findings of the NASA Astronaut Health Care System
12 Review Committee. NASA chartered this committee and
13 selected the members to review the medical and behavioral
14 health care that is provided to astronauts, provide
15 opinions as to what, if any, procedures or testing could be
16 put in place to predict disordered conduct or acts of
17 passion. The entire report, each finding and
18 recommendation, was approved and is supported unanimously
19 by the entire committee. The work of further evaluation
20 and action on the information contained within the report
21 falls to NASA.

22 The committee reviewed documents and conducted

1 interviews of medical, behavioral health, astronauts, and
2 family members. Because we were focused on systems issues
3 rather than the behavior of specific individuals, we
4 encouraged NASA personnel to speak freely and assured them
5 that the report would not include any personal identifiable
6 information. As the review progressed, it became apparent
7 that major vulnerabilities, underlying root causes, and
8 contributing factors extend well beyond the specific
9 medical aspects of NASA operations.

10 The report's most important issues and risks can
11 be summarized in the following three areas: first, NASA
12 personnel feel strongly the human factors concerns are
13 disregarded to the point where they are reluctant to
14 identify such concerns in the future; second, that
15 supervisors, peers, and other NASA personnel must be
16 empowered and expected to enforce standards of conduct; and
17 third, that medical and behavioral health services should
18 be integrated and focused on astronaut performance
19 enhancement.

20 The perceived disregard of human factors concerns
21 has the greatest safety implications and demands immediate
22 attention. Unfortunately, a disproportionate amount of

1 attention has been focused on astronaut alcohol use.

2 Separately, when NASA astronauts and medical
3 personnel described specific instances of alcohol use to
4 the committee as examples of a much larger issue, that NASA
5 personnel felt that human factors concerns with significant
6 safety implications had been disregarded when raised to
7 local on-scene leadership. The interviewees were
8 eyewitnesses to the events and provided the information
9 voluntarily and unprompted to the committee.

10 We wish to emphasize again that the specifics of
11 the incidents should not be the focus of the attention.
12 The general sense of disregard for human factors described
13 as "demoralizing" to the point where NASA personnel are
14 less likely to report concerns of performance decrement is
15 the fundamental concern NASA must investigate and remedy.

16 We understand the outrage that some members of
17 NASA have expressed at this particular finding. However,
18 public statements that such things are simply impossible,
19 challenging the veracity of the findings, referring to them
20 as "unproven allegations" or "urban legends," rather than
21 acknowledging how difficult raising such concerns can be,
22 do not encourage openness and safety, make future reporting

1 even less likely, and increase the risk of future mishaps
2 or incidents.

3 The recently released NASA Spaceflight Safety
4 Review did not prove that the evidence described to us did
5 not happen, only that NASA personnel who shared their
6 concerns with the committee during the interviews did not
7 bring these same concerns forward during the safety review.

8 We believe this may represent continued fear and barriers
9 to communication and may be a cause for greater, not less,
10 concern.

11 The committee identified a number of structural
12 and cultural issues that currently exist at NASA that make
13 it even more difficult to predict an episode of disordered
14 conduct and made recommendations to ameliorate them. These
15 recommendations include instituting a formal written code
16 of conduct, creating enduring supervisory mentoring
17 relationships with effective feedback and evaluation, and
18 empowering supervisors, peers, and support staff to bring
19 forward concerns. Solutions will require a systems-based
20 approach.

21 NASA has acknowledged the intent to act upon
22 most, if not all, of these recommendations. Each finding

1 and recommendation should be explicitly addressed and
2 tracked to resolution with both internal and external
3 oversight.

4 We believe the first and most important step that
5 needs to be taken by NASA is to conduct a thorough,
6 appropriately constructed, anonymous survey of the relevant
7 populations covered by this report. This survey must be
8 carefully worded in order to obtain valid actionable
9 information.

10 NASA senior leadership must provide vocal support
11 for the survey and encourage NASA personnel to be open,
12 honest, and thorough in their replies. They must be
13 assured of anonymity, freedom from reprisal, and that the
14 information will be used appropriately. Otherwise, the
15 concerns will be driven further underground.

16 Only with such a comprehensive, anonymous, valid,
17 and visibly supported survey can NASA truly determine the
18 scope of the problems and drive toward system solutions.

19 Thank you.

20 CHAIRMAN UDALL: Thank you, Colonel Bachmann.

21 Dr. Williams is recognized.

22 DR. WILLIAMS: Mr. Chairman and Members of the

1 Subcommittee, thank you for the opportunity to appear today
2 to discuss the NASA Astronaut Medical and Behavioral Health
3 Care Program.

4 I am pleased to provide you with insight into
5 this comprehensive program and discuss our plans regarding
6 the findings of the NASA Astronaut Health Care System
7 Review Committee and the internal review conducted at
8 Johnson Space Center.

9 The NASA Astronaut Medical and Behavioral Health
10 Care Program has succeeded in keeping our astronauts
11 healthy and ready to perform the challenging tasks that
12 NASA asks of them. Over the course of our Nation's 40-year
13 human space flight endeavor, the health care system has
14 contributed to the success of all NASA human space flight
15 missions. No mission has thus far been abbreviated or
16 terminated because of a health care issue.

17 Longer duration exploration missions will provide
18 new challenges, and we are committed to ensuring our
19 program continues to provide the best medical and
20 behavioral health care today.

21 The health-related recommendations of the
22 Astronaut Health Care System Review Committee are

1 thoughtful and will contribute to meeting the behavioral
2 health challenges that lie ahead. We take the
3 recommendations of the review committee seriously, and we
4 thank the committee for all the time and effort involved in
5 their study.

6 Our overarching goal is to improve behavioral
7 health and medical care for the astronauts. Several of the
8 committee recommendations were accepted immediately, and
9 many more will be accepted in the coming months.

10 Specifically, NASA accepts the recommendations
11 concerning analysis and use of behavioral health data and
12 will convene experts to address psychological testing as
13 recommended.

14 Briefings by the flight surgeons to crewmembers
15 concerning medical monitoring activities and briefings by
16 principal investigators concerning research data collection
17 in the context of obtaining informed consent will be
18 reemphasized.

19 Effective communication between astronauts and
20 flight surgeons will be addressed. We will ensure both
21 groups are aware of the multiple pathways to communicate
22 safety and health concerns, and we will be working together

1 in support of NASA senior leadership to reinforce these
2 concepts.

3 Flight surgeon scheduling and task assignment and
4 flight medicine clinic operations will be closely examined
5 with the goal of enhancing continuity of care to the
6 greatest extent feasible. Options for providing effective
7 behavioral health services to all flight-assignable
8 astronauts for the purposes of performance enhancement will
9 be reviewed, and a behavioral health assessment will be
10 conducted as part of the annual astronaut physical
11 examination. Options for flight surgeon behavioral health
12 assessment training will also be identified.

13 A common credentialing and privileging process
14 will be applied to behavioral health and aeromedical
15 services, and peer review of practice will be enhanced for
16 both.

17 NASA's electronic medical record system will be
18 reexamined to provide maximum privacy consistent with safe
19 medical practice in compliance with all applicable
20 statutes, and regulation governing privacy of medical
21 information will be assured.

22 Process linkages between the behavioral health

1 records system and the electronic medical record will be
2 reviewed and established, and all appropriately
3 credentialed and privileged practitioners will be granted
4 records access as appropriate.

5 NASA will examine options for assuring quality of
6 care delivered by community consultants and practitioners.

7 Written operational instructions and procedures for the
8 behavioral health clinic will be examined and enhanced as
9 appropriate. The Aerospace Medicine Board Charter will be
10 reviewed and updated to reflect appropriate membership,
11 authority, and accountability. Regular meetings will be
12 scheduled between behavioral health staff and flight
13 surgeons to enhance clinical communication.

14 Our initial responses to the committee's
15 recommendation were reviewed and endorsed by the NASA
16 Medical Policy Board on August 21st, 2007. The Medical
17 Policy Board, consisting of medical experts both external
18 and internal to NASA, is available to me for consultation
19 on all NASA medical policy. The Medical Policy Board will
20 provide ongoing implementation oversight, and I will
21 provide progress reports.

22 Commitment to flight safety remains the

1 foundation of our effort, and we look forward to system
2 improvements that will be realized as a result of this
3 report.

4 I look forward to answering any questions you may
5 have this morning.

6 CHAIRMAN UDALL: Thank you, Dr. Williams.

7 Dr. Ochoa, the floor is yours for 5 minutes.

8 DR. OCHOA: Thank you. Good morning, Mr.
9 Chairman and Members of the Subcommittee. Thank you for
10 the opportunity to appear before you today.

11 I have the privilege of managing the organization
12 that includes the Astronaut Office and the Aircraft
13 Operations Division at NASA Johnson Space Center.

14 Prior to becoming director of Flight Crew
15 Operations a year ago and deputy director 4 years before
16 that, I was a member of the Astronaut Office for 12 years
17 and was fortunate enough to fly on four Space Shuttle
18 missions.

19 In my experience, astronauts prepare thoroughly
20 and uncompromisingly for their missions. One of my crew
21 mates compared it to preparing for the Olympics. Every
22 act, every day, is designed to make sure that you are at

1 your peak, both mentally and physically, when you launch
2 into space.

3 About 10 years ago, as we began assembly of the
4 International Space Station, it became clear that astronaut
5 preparation needed to be raised to a new level to
6 accomplish the increased complexity of establishing and
7 maintaining a permanent human presence in space.

8 Along with the Mission Operations Directorate
9 whose job is to plan, train, and fly missions, and the
10 Space Life Sciences Directorate who ensures the crew
11 health, the Flight Crew Operations Directorate developed
12 new processes, training, evidence methods, and fitness
13 standards to meet the challenge of assembling and operating
14 the Space Station.

15 Standards for fitness for duty are determined,
16 measured, and documented using a number of processes and
17 tools. Comments and quantitative evaluations by
18 instructors are documented in every phase of training and
19 included in each astronaut's personnel file.

20 In addition to training in many areas ranging
21 from spacecraft systems to robotics and space walking to
22 expedition preparation, NASA uses other processes to

1 prepare and evaluate astronauts, including the Instructor
2 Astronaut Program, the Commander Upgrade Program, and the
3 Astronaut Evaluation Board. All of these are used by the
4 chief of the Astronaut Office in the flight assignment
5 recommendation process.

6 Medical standards for flight are used by the
7 Aerospace Medicine Board to make certification decisions.
8 The certification results are addressed during biweekly
9 meetings between astronaut and flight surgeon management.
10 The communication and relationship between Flight Crew
11 Operations and the space medicine community is strong,
12 allowing NASA to effectively address concerns regarding
13 crew health and fitness.

14 Flight surgeons are aware of their responsibility
15 to assure that an astronaut's health or behavior does not
16 present a risk to themselves or the mission, and the flight
17 crew management as well as NASA's leadership support their
18 efforts to do so.

19 Flight crews are very fortunate to have a group
20 of flight surgeons who are not only excellent physicians,
21 but who understand the training and the operational
22 environment of an astronaut and the implications of that

1 astronaut of that environment to astronaut health. The
2 flight surgeons are dedicated to maintaining or returning
3 astronauts to flight status when at all possible, keeping
4 within the medical standards that protect health and
5 mission success.

6 Following the events of last February, Johnson
7 Space Center conducted an internal assessment, and NASA
8 Headquarters chartered the Astronaut Health Care Review
9 Committee. While behavioral health recommendations were
10 the focus of the Health Care Committee report, the report
11 also included a number of comments related to Astronaut
12 Office behavior and processes.

13 As the committee itself noted, they did not
14 attempt to determine the veracity of those comments, nor
15 was there any request for information on Astronaut Office
16 processes, policies, or anything that could be
17 characterized as Astronaut Office culture.

18 In response to the committee report, NASA has
19 taken decisive steps. Bryan O'Connor's thorough
20 investigation confirmed my own personal experience as both
21 a crewmember and a manager of flight crew. We have found
22 no instance where astronauts have used alcohol in the

1 immediate preflight period or were under the effects or
2 influence of alcohol at launch, and no case where a flight
3 surgeon or astronaut raised a concern about this to
4 management.

5 NASA has also responded to the committee's report
6 by developing an anonymous survey to determine what issues
7 actually exist and their scope. This survey will be
8 provided to the Astronaut Corps and flight surgeons this
9 month. Both groups will be asked to respond to questions
10 regarding communication, trust, and responsibilities, and
11 regarding potential concerns or barriers to raising issues
12 with flight safety or crew suitability for flight.

13 Additionally, astronauts will be asked about
14 policies and procedures dealing with astronaut performance
15 and feedback, crew assignment, and space flight alcohol
16 use. NASA will then develop a plan to address any issues
17 identified by the survey report, a course of action that
18 the committee indicated they intended as NASA's response.

19 In conclusion, I am extremely proud to represent
20 the Astronaut Office, both within NASA and externally, to
21 Members of this Committee, to the media, and to the public.

22 Our astronauts are well prepared to carry out the Nation's

1 human space flight program. They take their responsibility
2 very seriously. The same can be said of the entire NASA
3 team that prepares and executes human space flight
4 missions.

5 The real proof of that lies in the tremendous
6 accomplishments of our human space flight programs,
7 accomplishments made possible by the dedicated people at
8 NASA, our engineers, flight controllers, scientists,
9 doctors, and astronauts.

10 I would be happy to respond to any questions.

11 CHAIRMAN UDALL: Thank you, Dr. Ochoa.

12 Mr. O'Connor?

13 MR. O'CONNOR: Mr. Chairman, Members of the
14 Subcommittee and the Committee, thank you for this
15 opportunity to address you on the subject of space flight
16 crew safety.

17 As NASA's chief of Safety and Mission Assurance,
18 I report directly to our Administrator on matters dealing
19 with ground safety and flight safety, and I also have
20 policy and functional oversight responsibility for this
21 agency and for the safety organizations assigned to each of
22 the centers across the agency.

1 My organizational relationships with flight crew
2 operations and with the chief health and medical officer
3 are included in my written remarks.

4 In its final report dated 27 July 2007, the
5 Astronaut Health Care System Review Committee found the
6 following, "Interviews with flight surgeons and astronauts
7 identified episodes of heavy use of alcohol by astronauts
8 in the immediate preflight period which led to flight
9 safety concerns. Two specific instances were described
10 where astronauts had been so intoxicated prior to flight,
11 that flight surgeons and/or fellow astronauts raised
12 concerns to local on-scene leadership regarding flight
13 safety. However, the individuals were will permitted to
14 fly."

15 In response, the Deputy Administrator appointed
16 me to review the reported allocations. The purpose of my
17 review was twofold: number one, evaluate the committee's
18 finding related to the inappropriate use or abuse of
19 alcohol by astronauts in the immediate preflight space
20 flight period, and two, evaluate relevant existing policies
21 covering alcohol use and abuse at NASA.

22 My approach to the review was to learn as much as

1 I could about the reported allegations through interviews,
2 data searches, and history review. The goal here was to
3 establish the nature and the scope of any flight crew
4 alcohol abuse, thus enabling a more informed course of
5 action in our policies, procedures, risk mitigation
6 strategies, our authority structure, and communications
7 systems.

8 The scope of my review was limited to space
9 flight with focus on the activities on launch day from crew
10 wake-up until launch. For this potential flight safety
11 issue, the relevant question was did we have an instance
12 where a crewmember presented on launch morning in an
13 impaired state, was observed as such by the flight surgeon
14 or another crewmember, and then over their objections was
15 cleared to fly that day by operational management.

16 Consistent with our standard approach to
17 anonymous safety concerns, my investigative method included
18 a search of over 1,500 anonymous reporting system and
19 confidential hotline reports going back to 1987 when we
20 first established the NASA Safety Reporting System.

21 With the help of the NASA Safety Center, we
22 searched literally tens of thousands of mishap and

1 close-call records going back that same length of time.

2 I received inputs by phone, e-mail, in person,
3 from over 130 individuals who have been involved one way or
4 another in activities during the last few days before
5 launch either at the Kennedy Space Center or at the
6 Baikonur Cosmodrome in Kazakhstan.

7 I heard from every one of our current operational
8 flight surgeons and nearly 80 percent of the current
9 Astronaut Corps and many former astronauts. I also talked
10 to suit technicians, medical staff, operational managers,
11 crew quarters managers, food preparation and service staff,
12 and close-out crew technicians. The close-out crew are the
13 last people to see the crew before launch.

14 To supplement this review, I reminded members of
15 the flight community at all times that they should use the
16 hotlines and the NASA Safety Reporting System for any
17 flight safety information they felt reluctant to provide to
18 me in an open forum, and I reviewed those, hotline and NSRS
19 system, throughout.

20 Also, NASA is preparing a focused anonymous
21 survey as a follow-up to this. This survey will try to
22 flesh out any residual concerns in this or other areas

1 covered by the committee report.

2 Within the scope and the limitations of my
3 review, I was not able to verify any case in which an
4 astronaut space flight crew member was impaired on launch
5 day or any case where a NASA manager disregarded
6 recommendations by a flight surgeon or another crewmember
7 that an astronaut crewmember not be allowed to fly on the
8 Shuttle or the Soyuz.

9 Should such a situation present itself in the
10 future, I am confident from my review that there are
11 reasonable safeguards in place, including such things as
12 the flight surgeon check that morning, the presence of
13 flight crew managers, TV cameras, suit technicians, and
14 other technical and administrative staff and supervisors
15 that would keep us from ever allowing an impaired
16 crewmember from boarding a spacecraft.

17 As for the chance that we will disregard a flight
18 surgeon or crewmember safety concerns, I found that
19 although there may be occasional disagreements among
20 operations and medical team members, all parties understood
21 their roles and authorities and the multiple safety
22 reporting and appeal paths we have put in place, some as

1 late as the last 2 years.

2 My report makes one recommendation to improve
3 flight surgeon oversight during launch day activities and
4 several recommendations concerning relevant agency policies
5 that should be improved for scope and clarity. This review
6 is complete, but I have reminded our workforce that any
7 alcohol abuse or other flight safety threats should be
8 reported in an open forum or, if necessary, through any one
9 of the several anonymous reporting systems we have in place
10 at NASA.

11 Thank you.

12 CHAIRMAN UDALL: Thank you, Mr. O'Connor. Thank
13 you to the panel.

14 We should give everybody an update. We have a
15 looming set of votes, but we are going to start now with
16 the first round of questions, and we will play it by ear
17 because we do really want to hear from everybody on the
18 panel and give everybody on the dias a chance to ask their
19 questions.

20 At this point, the chair recognizes himself for 5
21 minutes.

22 Colonel Bachmann, I would like to focus on your

1 testimony. I speak for myself, although I think I might
2 speak for other members of the Subcommittee, when I say it
3 is hard for us to hear your testimony followed by that of
4 the NASA witnesses and not be somewhat troubled.

5 On the one hand, your committee found that,
6 quote, quoting you, "Several senior flight surgeons
7 expressed their belief that their medical opinions
8 regarding astronaut fitness for duty, flight safety, and
9 accomplishments, were not valued by leadership other than
10 to validate that all medical systems were a go for an
11 on-time mission completion," and to continue, "Instances
12 were described where major crew medical or behavioral
13 problems were identified to astronaut leadership, and the
14 medical advice was disregarded."

15 And finally, your testimony and your committee
16 related the following, "Crew members raised concerns
17 regarding substandard astronaut task performance, which
18 were similarly disregarded."

19 I then contrast that with Mr. O'Connor's Space
20 Flight Safety Review report in which he includes an e-mail
21 letter from all of the JSC Mission Operations flight
22 surgeons in which they state, "In the course of Astronaut

1 Mission Operations and training, our safety and medical
2 concerns have not been ignored by NASA medical operations,
3 the Astronaut Office, Mission Operations Directorate, the
4 Aircraft Operations Directorate, and ISS and Shuttle
5 Program management," and then with Dr. Ochoa's written
6 testimony which states that, "The communication and
7 relationship between flight crew operations and the space
8 medicine community is strong and effective, allowing NASA
9 to effectively address concerns regarding safety and crew
10 health," to pick up on what Chairman Gordon said in his
11 remarks, it almost seems as though we are hearing about two
12 completely different organizations.

13 Why does your committee paint such a different
14 picture than the one that NASA personnel are describing to
15 this Subcommittee, and could you provide some specifics to
16 help us better understand the basis for your committee's
17 findings?

18 COLONEL BACHMANN: Yes, sir. And I agree that
19 the pictures that are painted by the two reports are
20 diametrically in opposition. Any answer about why would be
21 speculation on my part.

22 What the committee gathered together and wrote in

1 the report and unanimously supports is what the astronauts,
2 flight surgeons told us either face to face or over the
3 phone during the course of our committee investigation
4 evaluation. The fact that they are not coming forward with
5 similar concerns when NASA asked the question, I believe
6 still represents a problem. The why, I think is a barrier
7 to communication and concern about what is going to happen
8 to them and what is going to be done with the information.

9 That is why we really put a great deal of emphasis on the
10 anonymous survey, so that people will feel that they can
11 speak freely.

12 CHAIRMAN UDALL: Returning to your report,
13 Colonel, "Many of the cultural and structural issues
14 identified in this report" -- and I am again quoting from
15 what your committee wrote.

16 Let me start over. "Many of the cultural and
17 structural issues identified in this report as problematic
18 existed for many years, and some of it existed since the
19 earliest days of the space program. These issues are so
20 ingrained and longstanding that it will take senior
21 leadership action to remediate them."

22 These are sobering words. Could you give me one

1 or two examples of the cultural and structural issues your
2 committee is talking about?

3 COLONEL BACHMANN: Please keep in mind that the
4 makeup of the committee was very diverse. We had military
5 flight surgeons and behavioral health experts. We had
6 civilians. All but one of the members of the committee had
7 some military experience, but we did have a member from the
8 VA who not -- we are familiar with the military
9 environment, behavior of highly skilled, highly
10 professional, highly selected groups of people that still
11 have human issues. They still fall victim to all the same
12 kinds of issues that we do. There are doctors and military
13 pilots and airline pilots who have trouble with drinking
14 alcohol when they shouldn't. We have behavior problems
15 that come as a surprise to coworkers, and I think NASA is
16 no different in that regard.

17 And not to speak poorly of the Astronaut Corps,
18 we think very highly of the astronauts, but we still
19 remember that they are humans and fall victim to the same
20 kinds of things we do.

21 The issues of the kinds of behaviors that are
22 described should not come as a surprise to anybody who

1 deals with people. The concern for us was that they seem
2 to come as a surprise because NASA astronauts are so very
3 good. It is still unreasonable to think that they won't
4 have individuals that have problems with alcohol, that they
5 won't have individuals have problems with marital
6 relationships, with money, and they need to set up a system
7 where they can identify folks that are straying from the
8 path sooner and do something about it before it becomes a
9 major issue.

10 CHAIRMAN UDALL: Thank you, Colonel Bachmann.

11 I want to recognize the Ranking Member, Mr.
12 Feeney, and I am hopeful I might also be able to recognize
13 the chairman of the Full Committee, Mr. Gordon, before we
14 have to go to the floor to vote. We will recess the
15 committee temporarily.

16 Mr. Feeney?

17 REPRESENTATIVE FEENEY: Well, thank you.

18 I guess I am hesitant to ask what may be the
19 silliest question of 2007, but, Mr. O'Connor, just why
20 would it be a great risk if an astronaut or astronauts had
21 too much to drink before flight?

22 I have been in the simulator. I know that the

1 medical risks of, for example, vomiting into your mask are
2 important, but if the launch is successful, the truth of
3 the matter is that it is all technical and computer-driven.

4 It is actually the emergency landing that is a concern.

5 And other than it being poor practice, are there
6 other concerns? Because the Soviets do have this tradition
7 where shortly before take-off, they have a toast, and you
8 outlined that it is basically just touching to the lips,
9 but in any event, it may be a silly question. But what
10 other threats, other than vomiting or the inability for
11 somebody to safely land if there is an emergency landing,
12 would there be if astronauts were drinking immediately
13 prior to flight?

14 [Audio break.]

15 MR. O'CONNOR: [In progress] -- members getting
16 ready to fly the Shuttle, and one of those members really
17 didn't have much to do for the first 3 days of the mission,
18 and then on day four, they start working on some
19 experiment. Even that crewmembers needs to be ready for an
20 egress on the launch pad. Every single one of those
21 crewmembers has to be able to convince their commander when
22 they get on board that they would be able to in emergency

1 get out without assistance in case of an emergency on the
2 launch pad, no matter what, and that really is the first
3 challenge, I believe, even before they light off the
4 vehicle and launch is to have a crew that is fit and they
5 have their minds in order and they are not going to need to
6 be pulled out of the cockpit by somebody else putting the
7 crew at risk.

8 REPRESENTATIVE FEENEY: Not to mention that if
9 one of them were caught to be drinking, you would have to
10 cancel the whole flight potentially if you didn't have
11 anybody ready to step in.

12 MR. O'CONNOR: Well, that was part of my review
13 was to look at that launch day, is it possible that someone
14 could actually wind up in the cockpit impaired, and if so,
15 what sort of factors do we have in place to prevent that
16 from happening.

17 I found it really hard to imagine that you could
18 get there, but let's say it wasn't alcohol. Let's say
19 somebody fell down a stairs on their way to get suited up
20 or banged their head into something or had a stroke, and
21 they were perfectly fine the last time the flight surgeon
22 looked at them. We still need to be able to look them in

1 the eye, have the flight surgeon nearby, even to the point
2 where they walk out of the building, and I think that is
3 one of the concerns that we had was that impairment by any
4 means is something we want to prevent.

5 And we would hold off a launch, just as we did on
6 STS-36 some years ago when the crew had a sick crewmember.

7 The flight surgeon went to management, said we got a sick
8 crew member. Management really didn't want to hear this.
9 They were right in the middle of the launch countdown, and
10 yet, they had to agree, crewmember sick, let us know when
11 he is ready to go, and we will launch. So we held off for
12 2 days.

13 REPRESENTATIVE FEENEY: Colonel Bachmann and Mr.
14 O'Connor, on the much bigger issue and that is whether
15 there is still a cultural problem with the comfort of
16 reporting safety, whether it is technical -- and by the
17 way, I was there when Mike Griffin recognized a technician
18 that recognized on the wing, I think it was -- maybe he
19 will address it later -- in front of God and country and
20 the press and other NASA employees and administrators, he
21 recognized somebody that was literally a hero because he
22 was a technician and discovered a problem with the exterior

1 of the wing.

2 If that cultural change hasn't made its way to
3 the medical area, that seems to be the juxta of what this
4 committee hearing is about.

5 Colonel Bachmann, because of the process he used,
6 voluntary anonymous witnesses, finds one set of consistent
7 testimony, and he has got a very credible panel.

8 Mr. O'Connor finds a very different set of
9 availability of communications and independent
10 communication avenues and finds that nobody is reluctant to
11 come forward.

12 Could this be a bias in sampling error? I mean,
13 I remember the headlines, "Dewey Defeats Truman," because
14 the pollsters called only people that owned telephones at
15 the time.

16 You got 80 percent to participate, Mr. O'Connor.

17 Could it be that the 20 percent that didn't were part of
18 Colonel Bachmann's report? Could it be -- and he suggested
19 in his testimony, which was not in his written testimony,
20 that it may be an indication that there is continued fear
21 on the part of some.

22 So maybe I ought to ask Mr. O'Connor that because

1 you have read his report. He had 80-percent compliance.
2 Could we have a bias error here? Could we have people
3 making false accusations to the Bachmann committee, or
4 could we have people that participated in his committee
5 different from the 80 percent that participated in yours?

6 And that would be my last question, Mr. Chairman.

7 MR. O'CONNOR: Well, sir, you have touched on
8 several areas where there could have been differences.

9 My review was conducted on a little bit different
10 method. I put the word out to people that they can come
11 and talk to me about whatever they feel comfortable about.

12 I did not use any leading questions. I used the standards
13 safety investigation techniques.

14 I have to say that I got a lot more participation
15 in this than I have ever gotten on one of these before.
16 There were over 130 people who came forward or who answered
17 my call specifically, because I did reach out to some
18 people that were on certain missions, that I wanted to make
19 sure I had coverage of all the flights back through 1987,
20 and so those weren't just people coming forward. They were
21 me actually asking them to talk. So it was a little bit
22 different method.

1 I also tried to define flight safety in a way
2 that everybody understood, meant no kidding or impaired
3 crewmember in the cockpit. That is a different story than
4 maybe flight safety from a generic view might be.

5 CHAIRMAN UDALL: Mr. O'Connor, if I might
6 interrupt you.

7 MR. O'CONNOR: Yes, sir.

8 CHAIRMAN UDALL: I want to make sure the
9 chairman, given these pending votes, has a chance to make
10 any comments or ask any questions.

11 So the chair recognizes the chairman of the Full
12 Committee, Mr. Gordon.

13 REPRESENTATIVE GORDON: Thank you, Chairman.

14 Obviously, some quick observations, one, Mr.
15 O'Connor, I am a little surprised that your review was so
16 narrow that the charge was simply, as you stated, limited
17 to alcohol use on the day of launches. I would have hoped
18 there would have been a broader view.

19 Dr. Ochoa, I am pleased that you are going to
20 follow through with this anonymous survey. I think that
21 will be very helpful.

22 Dr. Williams, I thought you had a very

1 constructive testimony. I would like, if you would -- you
2 said you are going to accept -- had accepted and would
3 accept most of the recommendations. If you would, please,
4 if you would send to us a written statement on which
5 recommendations you will not accept and why and what kind
6 of reporting process you are going to have.

7 And finally, it seems that -- and again, Colonel
8 Bachmann, you know, you have the most unpleasant job here.

9 We thank you for that. It seems that you were looking at
10 the broader issue with more anonymous reports, although
11 anonymous face to face, not just over the -- where Mr.
12 O'Connor was looking at the more narrow, on the record. So
13 I think this can -- might play some role there, and that is
14 why I think, Dr. Ochoa, your surveys will be helpful.

15 We are going to have to go, but I want to ask a
16 question that I hope that you will answer when you come
17 back, Mr. Bachmann. I quote, "Peers and staff fear
18 ostracism if they identify their own or other problems."
19 That is a very troubling statement. What was your review
20 panel's basis for making that statement, and how confident
21 are you that it doesn't represent just the view of one or
22 two malcontents, particularly in respect to the letter that

1 came in from the various flight surgeons? And if you will
2 think about that and answer that when we get back.

3 Thank you, sir.

4 CHAIRMAN UDALL: Thank you, Mr. Chairman.

5 The Committee stands in recess. We will return
6 as soon as we can. Thank you.

7 [Recess taken from 11:02 a.m. through 11:27 a.m.]

8 REPRESENTATIVE LAMPSON: I call the hearing back
9 to order. Thank you all for your patience.

10 We will now return to questionings of the first
11 panel, and it is a great privilege to recognize the Ranking
12 Member, the judge and congressman from the great State of
13 Texas, Mr. Hall.

14 REPRESENTATIVE HALL: Thank you, Mr. Chairman.

15 Mr. O'Connor, the chairman of the big committee
16 asked you some questions and inquired about why it was
17 relegated to alcohol. There is a reason for that, is there
18 not, what your scope was?

19 MR. O'CONNOR: Yes, sir. The scope of my
20 investigation was to look at the specific case that the two
21 instances reported represented, and that was space flight
22 safety, Soyuz/Shuttle, and to try to deal with that and to

1 try to understand whether or not we had adequate controls
2 in place, if something like this happened, what was the
3 nature of it, so we could deal with how to remedy it.

4 We did not expand that to look at alcohol use
5 among astronauts in a broader sense. That might take a
6 different kind of a study, a little longer if we were to do
7 something like that. We didn't really need to do that.
8 What we did was we kind of triaged this whole thing.

9 When we first saw the words "flight safety,"
10 that, of course, raises a flag in my shop, and the very
11 first thing we did was we talked to the crew that was
12 getting ready to launch the Shuttle. We sat down with
13 them, and we talked to them about communications, about
14 dissent, what happens if the flight surgeon and the
15 managers disagree, do they know how to use the system
16 properly, and that was the first step.

17 The second step was to do this investigation,
18 focused on flight safety for Soyuz and Shuttle.

19 The third step then is the follow-up with the
20 anonymous survey that we will be doing that has a much
21 broader scope. It looks at the whole aspect of
22 communications and relationships among flight crew and

1 flight surgeons in a broader sense.

2 REPRESENTATIVE HALL: And with not having all the
3 purported facts at your disposal, you were somewhat at a
4 disadvantage, were you not?

5 MR. O'CONNOR: Well, I was at sort of a
6 disadvantage in that there is always a chance that someone
7 may not feel comfortable talking to their safety guy, and
8 --

9 REPRESENTATIVE HALL: Well, with no complaints
10 against Colonel Bachmann, you weren't given the benefit of
11 the many interviews that he made --

12 MR. O'CONNOR: Oh, yes, sir.

13 REPRESENTATIVE HALL: -- on the many thrusts of
14 this. Tell us about that, and I am going to ask Colonel
15 Bachmann to give us that information, too.

16 MR. O'CONNOR: Well, after we got Colonel
17 Bachmann's report, he added some more information after
18 that on two occasions for me, but he was hesitant and
19 really could not give me more than that because of the
20 promises that they had made to their own witnesses.

21 REPRESENTATIVE HALL: Up here and in this
22 Committee and in this Congress, you soon learn who you can

1 depend on and whose word is good, and if their word is not
2 good, nothing else is very good about them usually. I
3 think you took that attitude toward Colonel Bachmann that
4 he was keeping his word.

5 MR. O'CONNOR: Yes, sir. That is why I didn't
6 challenge it and treated it as I would any other anonymous
7 report we get through our anonymous systems.

8 REPRESENTATIVE HALL: Colonel Bachmann, you
9 couldn't give him all the facts because you had agreed to
10 those from whom you extracted a lot of those facts that you
11 wouldn't reveal their identity nor their employer. Is that
12 correct?

13 COLONEL BACHMANN: Yes, sir, that is correct. We
14 acknowledged that they are all NASA personnel and
15 astronauts and flight surgeons, but that is really as far
16 as we were willing to go.

17 REPRESENTATIVE HALL: And you did that only
18 because you didn't believe you could extract some of the
19 answers from them that you extracted had you not agreed to
20 give them the full cover. That is a correct statement,
21 isn't it?

22 COLONEL BACHMANN: Yes, sir. Really two-fold.

1 We wanted them to speak freely, and we were focused on
2 systems issues rather than any one individual.

3 REPRESENTATIVE HALL: They spoke freely knowing
4 you weren't going to reveal their names and their
5 employment to be scrutinized further by others who had the
6 duty to scrutinize them further. Isn't that correct?

7 COLONEL BACHMANN: Absolutely. Yes, sir.

8 REPRESENTATIVE HALL: All right. Mr. O'Connor,
9 then it came down to you, and you have scrutinized and
10 observed many mishaps and many close calls. Have there
11 ever been any that involved alcohol or drug use or abuse by
12 astronauts since you have been doing that? Yes or no.

13 MR. O'CONNOR: No, sir.

14 REPRESENTATIVE HALL: And have you -- I think you
15 said 680 anonymous safety concerns, that were anonymous to
16 Colonel Bachmann, reported to and investigated by the NASA
17 Safety Reporting System since its inception, 1987. None of
18 them involved alcohol, astronaut alcohol or drug use or
19 abuse. Is that a correct statement?

20 MR. O'CONNOR: That is correct.

21 REPRESENTATIVE HALL: And of the 863 safety
22 hotline reports recorded since its inception in 1991 to the

1 present, none involved alcohol or drug use or abuse by an
2 astronaut. Correct?

3 MR. O'CONNOR: That is correct.

4 REPRESENTATIVE HALL: Although Johnson Space
5 Center doesn't reveal the identities of personnel involved
6 in disciplinary actions, the most recent report to Ochoa
7 covered the years 2002 through 2006, including a total of
8 seven such actions related to alcohol or drugs at the
9 center. Informal input from Flight Crew Operations was
10 that none of these involved astronauts.

11 MR. O'CONNOR: That is correct.

12 REPRESENTATIVE HALL: And for the last, of more
13 than 90 individuals who answered your call for information,
14 not one offered any evidence of alcohol use or abuse in
15 immediate preflight time frame. Isn't that correct?

16 MR. O'CONNOR: Yes, sir, with the one exception

17 --

18 REPRESENTATIVE HALL: The Soyuz.

19 MR. O'CONNOR: -- that since then, there have
20 been 40 more.

21 REPRESENTATIVE HALL: Yes.

22 MR. O'CONNOR: So I would raise that number to

1 130.

2 REPRESENTATIVE HALL: All right. And I would ask
3 you this. I know in the aftermath of the Challenger and
4 the Columbia accidents, NASA has tried very hard to ensure
5 that there are open independent communication paths to
6 raise safety concerns. That is something I have been very
7 involved in and wanting to module it with an escape hatch
8 and insisted on it and had money in the budget for it a
9 couple or three times. One time, I think maybe one of the
10 older astronauts that went up there after he was my age
11 used a little some of that to go up and back, and I didn't
12 like that, but I did like the fact that you were letting
13 older astronauts go now and then.

14 But for those safety concerns, would you please
15 discuss policies and/or procedures that are now in place to
16 ensure employees are encouraged to report any
17 safety-of-flight issues, and would you please discuss how,
18 if at all, you are changing and revising these policies?

19 MR. O'CONNOR: Yes, sir. As you mentioned, we
20 put the NASA Safety Reporting System into place after the
21 Challenger accident. The purpose of it was to address
22 those occasional cases where an employee does not feel

1 comfortable using open normal means of communication.
2 Maybe they had a disagreement with their supervisor and
3 didn't feel they could go any higher. We put this system
4 in place as a last resort for safety communications.

5 Since its inception, as you heard, we have had
6 680 people who have used it for various reasons, including
7 lack of communications or disregard for my concern, the
8 kind of things that we talked about today. Those things
9 have been part of that reporting system over the years.

10 REPRESENTATIVE HALL: And this is my last
11 question. I know my time is up.

12 You in your duty to report to the NASA
13 Administrator, you were, as we would say in Texas, not on
14 the ranch. You were kind of bridle-halted in that you
15 didn't have the full facts to report to him because they
16 weren't available to you. Is that correct?

17 MR. O'CONNOR: That is one way of putting it.
18 Yes, sir.

19 REPRESENTATIVE HALL: I yield back my time.
20 Thank you.

21 REPRESENTATIVE LAMPSON: The gentleman's time has
22 expired, and I will now claim 5 minutes for myself.

1 I want to start with Colonel Bachmann. First of
2 all, I sort of feel a little bit like what Ralph Hall's
3 comments were at the very beginning a while ago. I think I
4 am in so much awe and hold the Astronaut Corps in such
5 respect that I wonder why we -- it is unfortunate that we
6 had to have this kind of hearing, but I have a great deal
7 of respect, and I know that the astronauts are committed to
8 their families and to NASA and to our country and to our
9 communities. I have a tremendous amount of respect for
10 everything that they do.

11 Colonel Bachmann, I know that there are a lot of
12 astronauts who feel that the reports of alcohol use in your
13 report have tarnished the reputation of the Astronaut Corps
14 unfairly.

15 As we have heard today, your report included two
16 instances of astronaut use that NASA says it was unable to
17 verify. With all the confusion we have had since the
18 report came out, I would like to sort of ask you to help us
19 clear the air and ask just a few questions on that.

20 Does the alcohol -- does the inclusion of the
21 alcohol incidents in your report indicate your committee
22 thought -- indicate that your committee thought that there

1 was widespread abuse of alcohol in the Astronaut Corps?

2 COLONEL BACHMANN: Sir, as we said in the report
3 and as we said in the press conference when the report was
4 released, the committee does not have sufficient
5 information to describe the extent of alcohol use or
6 alcohol problems in NASA, in the Astronaut Corps.

7 What we had were specific instances described to
8 us, and we felt not as an underlying alcohol problem, but
9 as an underlying risk, communication, human factors
10 problem, and that the astronauts and flight surgeons were
11 so concerned about how this information was handled that
12 they brought those to us as kind of the prime examples,
13 although they hadn't any others. Those were the ones that
14 were concerning most to them.

15 REPRESENTATIVE LAMPSON: How many people on your
16 committee actually heard reports from individual astronauts
17 regarding alcohol use?

18 COLONEL BACHMANN: The interviews took place over
19 the space of several days. The bulk of them took place
20 with multiple members of the committee in the room. The
21 concerns brought forward by the flight surgeons, as best we
22 can recall, we had at least three committee members in the

1 room at the time that that particular story was told to us.

2 The instance was described.

3 REPRESENTATIVE LAMPSON: How many people are on
4 the committee?

5 COLONEL BACHMANN: There are eight altogether.

6 REPRESENTATIVE LAMPSON: Eight. And three heard
7 the --

8 COLONEL BACHMANN: Sir, I say at least three.
9 Again, people were coming and going, but I know that at
10 least three, if not more.

11 The astronaut-described alcohol incident was
12 described to one member of the committee who brought that
13 information back to the rest of us, and we discussed it.

14 REPRESENTATIVE LAMPSON: What were you trying to
15 say when you included the two incidents that were
16 volunteered to your committee by interviewees? What did
17 you want to try to accomplish with that?

18 COLONEL BACHMANN: Sir, again, we were
19 highlighting the concerns that the NASA individuals felt,
20 and they used these particular instances and others, but
21 these particular instances that were of greatest concern to
22 them that they used as examples of how significant safety

1 issues did not receive traction when they were sent
2 forward, that their professional opinions about the fitness
3 for duty or the ability of the astronauts to do the task
4 did not receive what they considered to be sufficient
5 attention.

6 REPRESENTATIVE LAMPSON: Do you think that there
7 is any real evidence to indicate that there is a
8 significant problem of alcohol abuse in the Astronaut
9 Corps?

10 COLONEL BACHMANN: Sir, as we said in the report
11 and during the press conference, we don't have a sufficient
12 number of interviews to tell you how pervasive alcohol use
13 problems might be. The description that we provided of the
14 rules or lack of rules that governed use of alcohol in the
15 crew quarters or the lack of a 12-hour rule explicitly
16 defined for space flight all have been validated by NASA,
17 and in fact, those were some of the first actions they took
18 was to institute explicit rules on the use of alcohol in
19 those settings.

20 We believe that makes the rest of the story more
21 credible as well, that the rest of the situation that they
22 have described has actually been validated by NASA.

1 REPRESENTATIVE LAMPSON: Before he left, Chairman
2 Gordon had asked some questions, and I am going to take the
3 remaining time to give you an opportunity to ask those. He
4 said what was your review panel's basis for making the
5 statement of peers and staff fear ostracism if they
6 identify their own or other's problems, and how confident
7 are you that it doesn't represent just the view of one or
8 two malcontents.

9 COLONEL BACHMANN: Sir, the first part of that is
10 how do we know that these don't represent just an isolated
11 individual or a collection of individuals, and how do we
12 reconcile that with a signed letter by, it looks like, the
13 bulk of the flight surgeons at NASA. I would have to defer
14 the answer back to the flight surgeons.

15 In the group of people that told us that story, I
16 am confident that some of the members that signed that
17 letter saying that essentially everything is fine were
18 present in the room when this story was told. So I can't
19 answer how they could tell one thing to us and sign a
20 different letter out to NASA.

21 As far as the statement about ostracism and
22 issues with their peers, again, those were the words that

1 the astronauts and the flight surgeons told to us. Those
2 were not our interpretation. It is more of a summary, but
3 those are the words that were used when the NASA people
4 described the issue to the committee.

5 REPRESENTATIVE LAMPSON: I know my time is up,
6 but I am going to take a little bit of the time that Bart
7 Gordon gave up a while ago to get his questions in and
8 answers, and he had gotten down to the point where he made
9 a statement of -- a restatement of the report, NASA must
10 ensure that people can identify safety and performance
11 concerns within NASA without fear of reprisal or career
12 injury and asked were you told of any instances where your
13 interviewees had been subjected to reprisals or had
14 witnessed other individuals being subjected to them.

15 COLONEL BACHMANN: Several vignettes were
16 described where -- in this particular case, the flight
17 surgeons described instances where they brought concerns
18 forward, and they were subjected to what they called
19 "public humiliation." We didn't pursue it further than
20 that, again, because the point of the issue was their
21 reluctance to bring things forward because of how similar
22 issues had been handled in the past.

1 REPRESENTATIVE LAMPSON: What does NASA need to
2 do to fix the problem your view panel discovered,
3 uncovered?

4 COLONEL BACHMANN: I think the most important
5 thing, again, is for the NASA leadership at the highest
6 levels to clearly state that they are concerned -- and I
7 think they have done that -- and make every effort to get
8 appropriate information that really will give them a sense
9 for the scope of the issue.

10 Face-to-face interviews are not the best way to
11 get sensitive information when people feel their jobs might
12 be at risk or that they might have other career
13 consequences. That is why, again, we emphasize the need
14 for a valid and anonymous survey that is not seen as a mere
15 exercise, but actually seen as vital to the success of
16 NASA's future missions, where people will feel that they
17 can speak freely.

18 If it is narrowly scoped or not clear to people
19 that they can respond without somebody being able to figure
20 out who said it, I am afraid that you could certainly get a
21 useless piece of information back, and that is where I
22 think the whole crux of the follow-up to this hearing and

1 this committee's work is to get good information from all
2 NASA personnel affected by these issues.

3 REPRESENTATIVE LAMPSON: From the folks I have
4 spoken with, the leadership at NASA, on areas where I have
5 talked, I believe that their commitment is to accomplish
6 that. I hold them in very, very high regard, and I know
7 that they are concerned about safety and success both at
8 NASA and is of utmost important and I know will be going
9 forward with it.

10 I have gone way over my time, and I will now
11 recognize Mr. Neugebauer from Texas -- I'm sorry. Mr.
12 Bonner. Jo, excuse me.

13 REPRESENTATIVE BONNER: No problem, Mr. Chairman.
14 Randy is a handsome fellow.

15 REPRESENTATIVE LAMPSON: Neither of you have much
16 hair.

17 REPRESENTATIVE BONNER: I noticed that when I
18 looked in the mirror this morning.

19 [Laughter.]

20 REPRESENTATIVE BONNER: Colonel, let me follow up
21 to the answer you just gave the chairman because I think it
22 is timely. Could you expand on any recommendations that

1 you would like to see that would help guide NASA in the
2 future toward a development of more adequate follow-up
3 surveys or questionnaires?

4 COLONEL BACHMANN: Yes, sir. In fact, in the Air
5 Force, we have what is called "unit climate assessment"
6 that we routinely do upon taking command of a new
7 organization, and since I have had the privilege of being a
8 commander for a number of organizations, certainly nothing
9 as large as NASA, but the survey is constructed with
10 questions that you can answer on a 1-to-5 scale about how
11 important or less important or critical or going well. You
12 can give them the scope. You can put a number, and that
13 actually generates some interesting data, but the more
14 interesting data as a commander have been the free text
15 blocks where people can type as much as they see fit to
16 tell you what they are thinking.

17 Honestly, if you see a comment made once and you
18 never see it pop up again on anybody else's survey, that is
19 interesting, and maybe you will want to go ask some more
20 questions, but if you see similar issues come up in
21 different voices, all pointing in the same direction,
22 whether the number scale is consistent with that or not,

1 you know you have got a problem, and you have to go figure
2 out what is going on.

3 And the Air Force, at least I think from what I
4 said, is pretty good at keeping the information on who said
5 it pretty secret. They have rules about demographics. If
6 it asks you if you are a woman and you only have two, it
7 will hide that information from you, so you can't go figure
8 out who the woman over 40 was in your unit that said that.

9 And again, I would say the questions need to be
10 broadly or at least start broad, and then they can get as
11 specific as NASA sees fit, so they can answer specific
12 questions. Are you aware of alcohol use, you know, in the
13 immediate preflight period, so that they were intoxicated
14 when they went to a vehicle? That is one question, but a
15 much broader question is are you aware of human factors
16 issues that you feel didn't get appropriate attention, and
17 then give them a text block where they can type in as many
18 examples as they can think of.

19 So I think there is a science to conducting
20 surveys, and I am certainly not an expert in that, but
21 there are people who are, and I think that is who NASA is
22 or should be looking at to help them build a survey that

1 will get them the information they need.

2 REPRESENTATIVE BONNER: As a follow-up -- and
3 this is really for the whole panel -- how should NASA deal
4 with an astronaut's natural reluctance to raise health or
5 behavioral issues that they fear or believe may jeopardize
6 their selection for future missions or assignments?

7 And especially to the two who have gone up, based
8 on your experience, are your colleagues or members of the
9 Astronaut Corps confident that they can raise health issues
10 or emotional or family problems without fear of
11 jeopardizing their NASA careers? But it is really open to
12 the whole panel.

13 Dr. Ochoa?

14 DR. OCHOA: I will take that question, and first,
15 I would like to say that I am glad to hear that Colonel
16 Bachmann and I are on the same page regarding the survey.

17 We are planning a survey exactly as he has
18 described it. We will have a combination of qualitative
19 and quantitative questions, so that people do answer on a
20 5-point scale, as well as have the opportunity to write in
21 a number of cases.

22 I have not actually noticed astronauts being shy

1 about bringing up issues of many different types of
2 natures, but we want to make sure that they do feel
3 comfortable. We believe the survey will give us some very
4 good information about that.

5 We have a number of other programs in place where
6 we emphasize to astronauts continuously about looking out
7 for themselves and their crew mates. One of the main
8 programs that we have is known as either Crew Resource
9 Management or Cockpit Resource Management, and you have
10 probably heard about it from the aviation industry, but a
11 lot of it is to prevent crew error, obviously, in critical
12 situations, and what they are really looking at is not
13 skills and knowledge, but how do you understand when you or
14 one of your crew mates may be tired, may be distracted, may
15 not be feeling well, may be more prone to make errors.

16 So any time we do a training session where we
17 have a group of astronauts as a crew training together, the
18 very first thing that we debrief is the Crew Resource
19 Management, and so we are always talking about looking out
20 for each other and making sure that we are working as an
21 effective team.

22 We also have a program in place called the

1 Expedition Interpersonal Training Program, which was
2 started several years ago, because we wanted to prepare
3 people for the long-duration missions that they were going
4 to have on the Space Station and also beyond, and part of
5 that program, we have workshops where we learn from
6 previous expeditions, not only space expeditions, but
7 Antarctic expeditions, things like that, how people have
8 dealt with interpersonal issues.

9 We have cross-cultural trainings since we fly
10 with astronauts from different countries, and we send
11 people on outdoor leadership classes with trained
12 supervisors where they talk about human factors issues.
13 They talk about leadership styles. They talk about how do
14 you keep a team going even if there's issues with one or
15 more members of the team.

16 The astronauts are given verbal feedback from the
17 experienced leaders of those courses, and then each member
18 of the team that has gone out and done this course
19 essentially rates every other team member sort of
20 anonymously. So, at the end of that course, each astronaut
21 that has participated has feedback from every other person
22 that they have been with to understand how they did

1 themselves and how they are perceived by others.

2 REPRESENTATIVE BONNER: Thank you very much. We
3 may have a follow-up question in writing to get a little
4 bit more specific answer to the question, but thank you
5 very much for that.

6 Mr. Chairman, thank you.

7 CHAIRMAN UDALL: Thank you, Mr. Bonner.

8 I know we have a lot of additional questions for
9 the panel, but I am going to move to our second witness,
10 Dr. Griffin.

11 If I might, I would like to pose one question for
12 the record to Colonel Bachmann. Per the Committee rules,
13 any Member can submit additional questions for the record.

14 Before we broke for the votes, Colonel, I was
15 talking about your sobering words, the effect in the
16 committee report, the issues of cultural and structural are
17 so ingrained and longstanding that it would take senior
18 leadership action to remediate them. I would ask you to
19 provide the Subcommittee with some specifics on the type of
20 senior leadership action that you think are needed.
21 Another way to put it would be what are the most important
22 three things that NASA senior leadership needs to do to

1 resolve the problems identified in your report, so that we
2 don't have to have another hearing like this a few years
3 from now.

4 So I am not asking you to answer that today, but
5 if you would submit your thoughts for the record, I know
6 the Subcommittee would appreciate it.

7 COLONEL BACHMANN: Yes, sir. Will do.

8 CHAIRMAN UDALL: Again, I want to thank the
9 panel. This has been very enlightening. I think I would
10 speak for everybody on the Subcommittee. When it comes to
11 clearly every one of you, your commitment to NASA and to
12 having the finest Astronaut Corps anywhere in the world, we
13 look forward to working with you further.

14 I thank you again, and at this point, I dismiss
15 this panel, and we will ask Dr. Griffin to join us at the
16 table.

17 [Pause.]

18 CHAIRMAN UDALL: Thank you for joining us.

19 I don't think the Doctor needs an introduction of
20 any length. We all know his talents and his commitment to
21 NASA and his many, many successes. Thank you for joining
22 us, and the floor is yours for as long as you need it,

1 Doctor.

2 ADMINISTRATOR GRIFFIN: Mr. Chairman, Ranking
3 Member Hall from the Full Committee, Members, thank you
4 very much for -- Mr. Feeney, Members of the Committee,
5 thank you for inviting me here today. I do have to admit I
6 wish it were under better circumstances.

7 We all recognize that the behavior that led to
8 the arrest of former Astronaut Lisa Nowak, the murder of
9 NASA engineer, David Beverly, in his office at the Johnson
10 Space Center, and this recent report by a panel of outside
11 experts containing allegations of improper use of alcohol
12 by astronauts has shaken public confidence in NASA.

13 NASA is an institution comprised of our Nation's
14 best and brightest, an institution responsible for carrying
15 out one of the noblest missions of our Government and our
16 Nation.

17 The personal conduct of NASA's workforce,
18 including our astronauts, must be of the highest standards,
19 beyond reproach, and day in and day out, we do indeed
20 demonstrate just such professional excellence and
21 dedication to our mission, but in the face of the
22 allegations and adversity which we have encountered

1 recently, we must ask and answer hard questions, and we
2 have done that.

3 The case of former Astronaut Nowak is a matter
4 for the courts to decide and is not an appropriate subject
5 of comment for me here today, but as a direct result of
6 that unfortunate incident, we did last February begin an
7 in-depth review of how we might better provide for the
8 behavioral health of our Astronaut Corps.

9 Shana Dale and I asked Dr. Richard Williams,
10 NASA's Chief Health and Medical Officer, to organize a
11 committee with membership external to NASA and having
12 expertise in aerospace medicine and psychiatry to review
13 the medical and behavioral health services provided to our
14 astronauts. We sought external advisors because we were
15 concerned that we might have missed something with which
16 others in the field with experience outside of NASA were
17 more familiar.

18 This review committee chaired by Dr. Bachmann,
19 Commander and Dean of the U.S. Air Force School of
20 Aerospace Medicine, provided me with their final report
21 this past July, and the report contained numerous findings
22 and recommendations, many of which will be useful to us as

1 we go forward.

2 Without question, the portion of the report which
3 has received the most attention was the citation by the
4 panel of certain allegations of improper use of alcohol by
5 astronauts preparing to fly, and further, that concerns
6 expressed by flight surgeons on this point had been ignored
7 by NASA management.

8 Now, given the seriousness of these allegations,
9 the only responsible action we could take was to
10 investigate them. Accordingly, Shana and I asked NASA's
11 Chief of Safety and Mission Assurance, Bryan O'Connor, from
12 whom you just heard to conduct a careful examination of
13 claims that astronauts had been impaired by alcohol in the
14 immediate preflight period as well as claims that
15 management had not been responsive to concerns by flight
16 surgeons and others about astronauts' fitness to fly.

17 As you have heard from Bryan, his extensive
18 review found no evidence to support the claims that any
19 astronauts were ever impaired by alcohol at launch time.
20 Further, NASA's flight surgeons have voluntarily -- I would
21 say the bulk of NASA's flight surgeons have voluntarily put
22 their names on a communication to Bryan saying that they

1 had no evidence of impairment by astronauts on flight day
2 nor any instance of their concerns to management being
3 disregarded, which has been the subject of earlier
4 discussion.

5 We take and I take these allegations very
6 seriously, just as we would any issue that could impact the
7 safety of our missions, but at the same time, I have also
8 said that the stories cited in the report seem improbable
9 to those of us familiar with the astronauts' rigorous and
10 very public activities in the hours leading up to a space
11 flight.

12 I personally began working with our astronauts
13 more than 25 years ago, and I know many former and current
14 members of the corps as valued colleagues and personal
15 friends. The cited allegation of alcohol impairment prior
16 to flight is simply not in accord with the behavior that I
17 have personally seen from our flight crews.

18 Now, this allegation aside, the committee put
19 substantial time, thought, and effort into their report.
20 They really did, and we are grateful for their service in
21 helping us to make NASA a better agency, and we are taking
22 action to address the other concerns and recommendations

1 from their report which we believe will improve our
2 astronaut health care procedures.

3 I have enumerated the actions we are taking in
4 response to this report in my written testimony to this
5 Committee. One of those is that NASA's Astronaut Office is
6 developing a formal code of conduct that will outline
7 professional standards expected of members of the Astronaut
8 Corps.

9 Now, Chairman Udall and other Members of this
10 Subcommittee, you will recall that many concerns about
11 NASA's culture were expressed in the aftermath of both
12 Space Shuttle Challenger and Columbia accidents, and there
13 were, indeed, unfortunate similarities in how those
14 accidents occurred. A common theme was the reluctance of
15 senior managers to listen to and evaluate carefully
16 concerns expressed by subordinates.

17 Nothing is more important to me than this matter.

18 I have established as a non-negotiable criterion for
19 management at NASA, starting with those who report directly
20 to me, that we must not fail to listen respectfully to our
21 people. We must not fail to investigate and adjudicate the
22 concerns which they express. We must not fail to act, if

1 necessary.

2 In today's NASA, with the approach we have taken
3 to implementing the recommendation of the Columbia Accident
4 Investigation Board to provide independent technical
5 authority at NASA, every employee has at least two
6 independent pathways which they may use to bring forth
7 concerns to upper management.

8 I have made the point on numerous occasions that
9 there will be no retribution for employees at any level who
10 bring forward a concern, that there will be praise, and
11 that there will be respectful treatment of the concern, and
12 it will be adjudicated. I believe that this is a matter of
13 trust, and that this trust has been kept.

14 Now, I must point out that respectful treatment
15 of an opinion does not necessarily imply a decision in
16 one's favor. Any argument or dispute which reaches NASA
17 managers has at least two people and almost always more who
18 disagree, and it is not possible to decide in favor of all
19 parties, but it is possible to provide all parties with a
20 careful and respectful hearing, and that is what I seek for
21 our agency. Again, this is a matter of trust, and that is
22 the culture change which I believe was needed and is

1 occurring at NASA.

2 Now, one cannot prove a negative. I cannot prove
3 that no one at NASA is afraid to speak up, but i hope that
4 that is not the case, and I will use this forum to ask once
5 again. Anyone who is watching this testimony, if you have
6 a concern, please come forward directly to me, if
7 necessary, and if necessary, I will protect your identity,
8 but I must have facts if they are out there in order to
9 make decisions.

10 Mr. Chairman, in this and many other ways, we
11 hope to restore any loss of public confidence in NASA that
12 may have resulted from these unfortunate incidents.

13 Thank you.

14 CHAIRMAN UDALL: Thank you, Dr. Griffin.

15 Administrator Griffin, I know the Subcommittee
16 would now like to turn to some questions, and the chair
17 recognizes himself for 5 minutes.

18 You talked about the recommendations in the
19 report and your intention to implement them. Do you have a
20 timeline off which you are operating when it comes to the
21 implementation?

22 ADMINISTRATOR GRIFFIN: Well, I don't know by

1 what date Dr. Williams plans to bring recommendations or an
2 assessment back to Shana and I. He probably does.

3 My own view is that this is both important and
4 urgent, but it is more important to get right than to get
5 done quickly.

6 It is important that we treat this advice as
7 respectfully as we treat all advice from our advisory
8 panels whether of permanent standing, such as the NASA
9 Advisory Council or the Aerospace Safety Advisory Panel, or
10 ad hoc as was this panel. It is important that we treat
11 their advice respectfully and that we evaluate it
12 carefully, while nonetheless recognizing that at the end of
13 the day, you and other oversight committees and committee
14 chairmen hold NASA responsible for our actions. So we will
15 evaluate the recommendations carefully.

16 We are already of a mind, as I have said several
17 times, to accept most of them. We will report to you any
18 disagreement between the recommendations we choose to
19 accept and those that we possibly think are not a good
20 idea, and we will discuss. We will report back to you on
21 the implementation, how the implementation is going, and we
22 will do it as quickly as we can do it and yet do it well.

1 CHAIRMAN UDALL: Thank you for that
2 straightforward answer, Dr. Griffin.

3 I would like to turn to the external committee's
4 recommendation particularly about carrying out a thorough
5 anonymous survey that is carefully worded to obtain valid
6 actionable information.

7 Dr. Griffin, in the testimony of Dr. Ochoa and
8 others, it sounds as if NASA is prepared to conduct such a
9 survey.

10 ADMINISTRATOR GRIFFIN: I cannot wait to do that.

11 CHAIRMAN UDALL: And it is not clear to me,
12 however, that NASA has a lot of experience in crafting that
13 kind of a carefully worded thorough survey that Colonel
14 Bachmann recommended.

15 Could I ask you if NASA is planning to have this
16 proposed survey reviewed by any external organization that
17 has expertise in this area, and if that isn't your current
18 plan, would you be willing to do so in the interest of
19 ensuring that NASA gets the best survey possible?

20 ADMINISTRATOR GRIFFIN: I believe that Ellen
21 expressed her agreement with Colonel Bachmann on all the
22 points regarding the survey, and yeah, of course, we will

1 craft what we think is the right survey, and we will have
2 it reviewed by external experts in this matter to make sure
3 that it is a well-done survey.

4 In the course of pursuing my studies for an MBA,
5 I had one course in market analysis, and I feel that if
6 that course served no other purpose, it served to sensitize
7 me to the way in which results purportedly obtained from a
8 survey can depend on how the survey is worded and what the
9 sampling environment is and who the target sample audience
10 is. So I join Colonel Bachmann in declining any expertise
11 in this matter except to know that it is thought with
12 concern, and we will be very careful.

13 CHAIRMAN UDALL: If I can editorialize briefly,
14 knowing what I know of your private sector experience, I
15 think you learned a lot more from that class than you
16 suggest, given the successes you had.

17 ADMINISTRATOR GRIFFIN: Well, I didn't drive
18 anybody into bankruptcy, if that is what you mean. So I
19 will take that as an upcheck.

20 CHAIRMAN UDALL: Be careful. We may get you
21 involved in the subprime lending solutions.

22 [Laughter.]

1 CHAIRMAN UDALL: A final question, Dr. Griffin.
2 The JSC internal review noted that if employees said they
3 were concerned about coworkers' behaviors, they would raise
4 concerns with the coworker management or flight medicine
5 official. However, the external reviews, you have heard
6 the report notes that the flight surgeons were demoralized
7 because their concerns were not valued.

8 Do you have any specific plans at this point to
9 do anything about this apparent disconnect?

10 ADMINISTRATOR GRIFFIN: Well, I mean, I do. Much
11 of it will have to be we will rely -- again, I will use
12 this forum to emphasize. If anyone has a concern, please
13 use NASA Safety Reporting System to write it down and send
14 it in. Your anonymity will be protected.

15 If anyone at NASA is concerned about an immediate
16 supervisor or a supervisor's supervisor and that concern
17 exists, bring it to me. Many do so. My In Box stays full.

18 I don't think there is a person out there who can report
19 back that a concern which was expressed to me was not dealt
20 with, meaning -- let me avoid the double negatives. I do
21 deal with any concerns brought to me and follow up.

22 In less formally than those mechanisms, I talk

1 regularly, periodically with -- I visit with our flight
2 docs, as I am at Flight Readiness Reviews and Shuttle
3 launch operations. I hope that it is clear to our flight
4 surgeons as it is clear to our engineers and our scientists
5 that not only do I want them to feel free to speak up, but
6 they have an obligation to do so.

7 In fact, at this point, I have to insert a
8 concern. If we have people at NASA in today's environment
9 who believe that they can't speak up for fear of
10 retribution of ostracism, then I would urge them to go that
11 extra mile and speak up because that is their obligation.
12 I need people working for NASA in this most demanding of
13 environments where we launch people or hundreds of millions
14 or billions of dollars of hardware into space. To work in
15 this most demanding environment requires much, and it
16 requires that people have the courage to bring forth their
17 concerns through a management chain which has stated openly
18 over and over again that you will receive a hearing. I
19 think our actions as a management team over the last 2-1/2
20 years have supported that.

21 When I came on board, one of the very first
22 things I had to do was to delay a Shuttle launch that I

1 desperately wanted to go. I had to delay it by several
2 months because some engineers expressed to me their
3 concerns that we had not done an adequate job of
4 calculating all the debris trajectories, particularly ice
5 debris and particularly off of the LOX feedline bellows.
6 So we did that.

7 Then I had to address a few months later a
8 concern by some of our earth scientists or some community
9 earth scientists who felt that their research was being
10 modified for public release or that their concerns were not
11 being appropriately heard, and we got all over that. And I
12 made it clear in an extraordinarily clear written policy
13 that the purpose of scientific and engineering
14 investigation is to get at truth, and we do that through
15 argument, through public discourse.

16 There have been other opportunities to address
17 criticisms of lack of openness at NASA and concerns that
18 were retribution, and in every single case, we have taken
19 the side of open discourse, and I will do it again here.

20 So, if there is anyone at NASA who has a concern,
21 bring it forward. I need to hear it.

22 CHAIRMAN UDALL: Thank you, Dr. Griffin.

1 I want to recognize the Ranking Member, but
2 before I do, in the context of the serious and important
3 and substantive hearing today, comment positively on the
4 process by which the situation with Endeavour was
5 considered. I think it demonstrated the cultural changes
6 that outside and internal groups have recommended, and
7 perhaps it is the model also for what we are trying to do
8 here, which is to drive some changes in how we manage the
9 Astronaut Corps and behavioral and medical problems, but
10 also potential upsides are reinforced and supported.

11 ADMINISTRATOR GRIFFIN: I think that process was
12 NASA in action at its finest, and we did not launch with
13 unanimity. Some engineers disagreed that the tile --
14 should fly, should reenter, and that a repair needed.
15 Others felt that it was fine. I personally heard all of
16 the arguments on that matter, and we decided to fly, and
17 that was the right decision, as it turned out, but the
18 people who felt we should not reenter that way were
19 certainly not ignored or disregarded.

20 During that same launch operation, I had lunch --
21 well, I had many occasions to visit with flight docs, and I
22 asked one of them privately, "Is there any possible way

1 that you would feel a concern or an issue in bringing forth
2 a concern?," and the gentleman laughed at me and said,
3 "You're worried about a medical doctor bringing forth a
4 concern?" This particular gentleman said, "I have no
5 respect for a medical doctor who has a concern and fears
6 that his job is in jeopardy." Now, that was an anonymous
7 conversation, and it will stay anonymous, but there is a
8 point there.

9 CHAIRMAN UDALL: Thank you.

10 The chair now recognizes the Ranking Member, Mr.
11 Feeney, for 5 minutes.

12 REPRESENTATIVE FEENEY: Thank you, Mr. Chairman.

13 Again, I think this is an important hearing to
14 clear the air, number one, and get this behind us, and
15 number two, to improve any procedures that we can undertake
16 that will help us improve, and I think that you have taken
17 it in that spirit.

18 You said more than once in your testimony that in
19 light of the Nowak discussion or the Nowak incident and the
20 discussion about astronauts flying while they may have been
21 intoxicated preflight that there has been a loss of
22 confidence in NASA. I really don't sense that.

1 I can tell you I haven't lost an ounce of
2 confidence in NASA or in you. I am confident that in
3 complex organizations that have the most complex of
4 obligations and challenges that things are going to go
5 wrong, and sometimes they will be technical, and sometimes
6 they will be human factors, and sometimes they will be bad
7 luck, but this is modern-day America, 24/7 news, and bad
8 luck doesn't happen. Everything is somebody's fault, and I
9 think you are learning that, Dr. Griffin. So, like it or
10 not, we are where we are.

11 I want to tell you I sympathize with how
12 frustrating it is because there were some specific
13 anecdotes in the Bachmann report. By the way, I don't
14 dismiss anything about the Bachmann report. I don't think
15 you have either.

16 ADMINISTRATOR GRIFFIN: Nor did I.

17 REPRESENTATIVE FEENEY: These are very credible
18 people that I think undertook a very important mission, but
19 the specific incidents that have made such news can't be
20 documented or corroborated, and the more general
21 allegations, that it is a cultural problem that needs
22 attention from the top senior leadership, I think cultural

1 problems is a little bit like shadowboxing because I think
2 that your administration has undertaken to change the
3 culture about reporting, and like I said, I witnessed the
4 one incidence live as we watched the Shuttle go off.

5 But I guess in light of the fact that my goal is
6 to go forward, I think that is what the chairman of the
7 Committee wants to do, it is what most of us want to do,
8 and improve constantly the operations of NASA. I am glad
9 that we have had focus on this physiological,
10 psychological, and physical well-being.

11 The recommendations for the most part are not at
12 issue that the Bachmann committee has made, but what is at
13 issue is whether or not there is a cultural problem here.
14 The last thing that the colonel told us is that we need to
15 fix the communications problem, and yet you and Dr. Ochoa
16 and Mr. Williams and Mr. O'Connor have said there are
17 multiple avenues independently, anonymously, that have been
18 set in place in NASA in the last few years, and that that
19 includes flight surgeons or astronauts that have concerns
20 about human safety.

21 So I guess the question I have is the Bachmann
22 report suggests that is a cultural problem which is decades

1 old involving communications about human well-being. I am
2 hearing from the NASA team unanimously that you do not
3 believe that to be the case, even though you have adopted
4 the recommendations or most of them about how to fix that
5 communications problem. Can you address that? Because why
6 are we fixing something that is not broken, I guess would
7 be a simple way to ask that question.

8 ADMINISTRATOR GRIFFIN: And as the Administrator,
9 actually that is the most important question for me.

10 I think I have made it clear, and if anyone
11 doubts my word, then I guess they do, but there is nothing
12 more important to me in an agency like NASA than having an
13 open, free, non-political discourse on difficult topics
14 because what we do is not easy. We have to work very, very
15 hard to get it right, and we don't always do that, but when
16 we get it right, when we decide what we think the right
17 course of action is, we should pursue that no matter what,
18 and that we only arrive at that through extensive and open
19 discourse by all parties, and I believe in that.

20 Now, if we have had in the past cultural problems
21 and we are trying to fix those, I can't guarantee that they
22 are completely fixed. I can only again entreat people to

1 trust this management team.

2 I believe it when Colonel Bachmann says that the
3 fact that people are willing to speak anonymously and not
4 willing to speak face to face on the record is itself a
5 problem. Yes, it is.

6 At the same time, I have no mechanism to deal
7 with the fact of somebody saying, "I have a concern, but I
8 am afraid if I speak my concern that I will be ostracized.

9 So I will keep it to myself." I mean, you can see the
10 logical conundrum there.

11 So all we can do is, again, create a record,
12 create a longstanding record of responding fairly,
13 respectfully, positively to any concern brought to us and
14 hope that that record of behavior will bring forth further
15 behavior of the type that we seek. That is what I am
16 desperately trying to do.

17 REPRESENTATIVE FEENEY: Thank you. I will yield
18 back, Mr. Chairman.

19 CHAIRMAN UDALL: Just briefly, I think it is very
20 hard sitting here to tell. Either the Bachmann report was
21 correct if multiple witnesses consistently said there is a
22 communications intimidation factor or what the NASA team,

1 including you and the folks that testified before you, have
2 said that you have done everything reasonably possible to
3 fix it, and you are encouraging people.

4 The recommendations that the committee made,
5 whether the communications system now works as well as it
6 can or not, will they do any harm if you adopt their -- is
7 it going to add new bureaucracy, costs, or do you think
8 those recommendations will enhance human safety, regardless
9 of whether there is a communications problem?

10 ADMINISTRATOR GRIFFIN: Well, our Medical Policy
11 Board just looked at those issues and expressed an early
12 view that our response to those recommendations being
13 generally accepting of them was a good thing, and I support
14 that view. I certainly don't think they will do any harm.

15 Yes, if we add additional process and procedure,
16 there is an opportunity cost of that. That means that some
17 other activity of lesser importance will not get done. We
18 will try to be judicious about that, and we will try not to
19 impose a bureaucracy in our health care system, but because
20 communication is the semiquinone of all organizational
21 management, we must invest in improving communications if,
22 in fact, there are issues.

1 I don't believe we have the issues that have been
2 raised, and I have said that, but I am prepared to have my
3 belief overturned by facts. I absolutely am.

4 I can assert to you beyond question that my
5 face-to-face communications, my telephone communications,
6 and my e-mail communications are filled up with people who
7 do not find me too intimidating to talk to, but of course,
8 I can't identify those out there who find me too
9 intimidating to talk to and thus are reluctant to express
10 their opinion. So we will continue to work on encouraging
11 open communications.

12 I believe in our -- I love this agency. I love
13 this enterprise. I love these people that we work with,
14 and we want to make it the best that it can possibly be. I
15 have never worked with finer people, and we have engaged in
16 the process of launching folks into space or the folks who
17 go into space. I have never worked with finder people.
18 They are not perfect, and, oh, by the way, I am not perfect
19 either, and trying as hard as we can to get this right, it
20 is most difficult. It is most difficult in the softer
21 areas.

22 If you want to ask me about the thermal margin on

1 a tile, I can deal with that, probably until you fall
2 asleep. If you want to ask me how do we know we have the
3 best possible communication processes, I don't know. It is
4 very hard, but we are trying.

5 REPRESENTATIVE FEENEY: Well, a great
6 philosopher, Woody Allen, once said that 90 percent of life
7 was just showing up, and what you are telling people, if
8 they have got problems with NASA issues, technical or human
9 factors, they have got to show up.

10 ADMINISTRATOR GRIFFIN: Please show up. The
11 decisions are made by the people who show up.

12 REPRESENTATIVE FEENEY: I will yield back, Mr.
13 Chairman.

14 CHAIRMAN UDALL: Mr. Hall is recognized.

15 REPRESENTATIVE HALL: Mr. Chairman, thank you.

16 I am a little disappointed in your testimony
17 because you have always indicated to me that you were
18 perfect.

19 [Laughter.]

20 ADMINISTRATOR GRIFFIN: Don't tell my wife.

21 REPRESENTATIVE HALL: All right.

22 Seriously, you know, you have to use the

1 information you have, and you are not going to discard any
2 of it because you need it. You need to know what the facts
3 are, and you will run down every fact, if I know you, very
4 well.

5 I guess I can just cut mine short by saying when
6 there is no degree of authenticity and no completely
7 confirmed testimony, coupled with a cry or a whimper of a
8 non-entity, they don't want to be -- know who they are.
9 They are afraid they lose their job. When you got that
10 type witness, compared with the witness such as yourself
11 and this panel of every one of these people that are
12 testifying -- and you could testify under oath because we
13 could require that and you would be willing to -- and the
14 testimony that is going to be read by the 435 Members of
15 the United States House of Representatives of their staffs
16 over there and by millions of people that listen to you
17 calling them forth, to come forth and give me that
18 information, not much else you can do, is there?

19 ADMINISTRATOR GRIFFIN: If there is, I really
20 wish someone would suggest it to me because I would try it.

21 REPRESENTATIVE HALL: But you can sure remember
22 that there is a difference in the authenticity of a guy who

1 says I am going to tell you this, but you can't tell
2 anybody who tell it and be sure and don't tell them I work
3 them, and a guy that steps up there and tows the line and
4 tells you what the facts are and leaves you to make that
5 decision. You are not so unfair that you would fire a guy
6 that gave you news that you didn't like or shoot the
7 messenger, are you?

8 ADMINISTRATOR GRIFFIN: No. I truly -- I would
9 like to assert -- and it is an assertion, but I believe it
10 can be backed up. I believe that I am and that the
11 management team I have hired consists of people who can
12 hear bad news. Act on it, and deal with the truth and not
13 punish the messenger. I believe that is what we have in
14 place at NASA. If someone else believes to the contrary,
15 then, again, I would like to hear about that because I will
16 fix it.

17 REPRESENTATIVE HALL: You are in the same
18 situation of Mr. O'Connor when he said, "I cannot say
19 conclusively that none of the incidents reported to the
20 committee ever happened. However, I was unable to verify
21 that they did," and you have to have verification, don't
22 you?

1 ADMINISTRATOR GRIFFIN: That is correct, sir.

2 REPRESENTATIVE HALL: And you have a chairman
3 here, Mr. Gordon, and you had the chairman of the
4 Subcommittee that have expressed their belief in your and
5 belief in the system and belief in the men and women that
6 go at great peril into a fragile mission that is still
7 fragile -- I don't care what anybody says -- and carry it
8 out for us. Those are the people you want to believe and
9 that you have to take testimony from that you can rely on.

10 I yield back my time.

11 CHAIRMAN UDALL: Thank you, Mr. Hall.

12 Mr. Griffin or Dr. Griffin, I thank you and all
13 of the witnesses for your time today. I apologize for the
14 musical chairs. We have had different meetings going on.

15 Let me just quickly conclude, once again,
16 complimenting you and congratulating you on a successful
17 Endeavour mission. I think it, once again, proves that
18 when things work out, you are brilliant.

19 [Laughter.]

20 CHAIRMAN UDALL: Let me just quickly quote some
21 conclusions from the earlier report.

22 "Many of the cultural and structural issues

1 identified in this report as pragmatic have existed for
2 many years, and some have existed since the earliest day of
3 the astronaut program. The current medical and operational
4 leadership at NASA inherited most of the cultural and
5 structural issues identified in this report. These issues
6 are also ingrained and longstanding, and that it will take
7 senior leadership action to remedy them."

8 To some extent, it puts you in the position of
9 having to push the noodle from behind on the less
10 difficult. You have said all the right words today, and
11 you meant it, and you are sincere about your openness. You
12 do have to keep in mind, though, a lot of reports don't
13 report directly to you. So you know all of this. We don't
14 have to go through that.

15 So let me just once again say that I was pleased
16 with Dr. Williams' testimony, and I am sure he is going to
17 get back to us on what will be done and what won't be done.

18 That will be very helpful.

19 I guess I will have to ask you why did you so
20 narrowly define Mr. O'Connor's mission as to only inquire
21 about alcohol abuse on the day of the mission rather than
22 what I think are the more and I think everybody here -- the

1 larger issue of an openness and a feeling of comfort with
2 the folks involved being able to come forward.

3 ADMINISTRATOR GRIFFIN: Well, there is a bit of a
4 misperception there. Bryan did as part of his charter ask
5 also of each and every flight surgeon, "Have you felt
6 uncomfortable coming forward? Do you feel comfortable
7 coming forward?" So that was part of it.

8 Now, the restriction to dealing with alcohol
9 abuse in the immediate surroundings of a flight,
10 distinguishing between urgent and important, it was the
11 most urgent aspect of all of this because that is an actual
12 flight safety issue.

13 Colonel Bachmann pointed out the sad truth that
14 we are all flawed human beings and that many very highly
15 accomplished people do have problems with relationships or
16 problems with alcohol, but if there were to be -- and I am
17 not saying that there is because I have not seen it, but if
18 there were to be an astronaut who had a problem with
19 alcohol, but managed to suppress that problem in the
20 immediate flight environment, we would not have a
21 safety-of-flight issue. Whereas, if somehow someone
22 managed to show up impaired for a flight, that would be a

1 safety problem.

2 So, with a limited amount of time to get on top
3 of the more urgent issues, we asked Bryan to focus on
4 dealing with those things which had been specifically
5 raised in the report that I felt as Administrator
6 absolutely required an early investigation.

7 Now, we have other things going on. We are not
8 ignoring the other aspects. You heard Ellen Ochoa talk
9 about the survey. We absolutely accepted that
10 recommendation. As I said, I can't wait for the results of
11 that survey. I want to know. We have reemphasized NSRS.
12 I have made personal and public appeals of any concerns to
13 be expressed with promises of protection for those
14 expressing the concerns. So we are not ignoring the other
15 aspects, but the most urgent thing was to deal with
16 immediate safety-of-flight issues that potentially had been
17 raised by that report, and that is what I asked Bryan to
18 do.

19 CHAIRMAN UDALL: Well, I just read it
20 differently. I read the alcohol problems as isolated in
21 the past and that he said that the bigger problem was a
22 lack of comfort by surgeon generals and others to be able

1 to come -- of medical surgeons to be able to come forward,
2 whether it is a diabetes problem, whether it is a migraine
3 headache that day, whether, you know -- again, you know, we
4 saw the accident two different ways. I thought he raised
5 other issues that were more important, but I think that
6 through this anonymous -- and, Doctor Ochoa, I congratulate
7 you on moving forward with that, and, Dr. Williams, again,
8 I think you have a good plan, and I think simply by raising
9 this issue in an uncomfortable way for you, unfortunately,
10 that it will probably do more good than anything you can do
11 to put people on notice that these problems that you
12 inherited need to be -- or potential problems that you
13 inherited need to be change.

14 And I again thank you for your candor, for your
15 service to the country, and for another successful flight,
16 and this meeting is adjourned.

17 ADMINISTRATOR GRIFFIN: Thank you, sir.

18 [Whereupon, at 12:30 p.m., the Subcommittee on
19 Space and Aeronautics of the Committee on Science and
20 Technology was adjourned.]