Cap Com: Bolts and liftoff.

Grissom: The clock has started.

Grissom: There's roll program.

Cap Com: Roger, roll.

Grissom: OK your roll is completed.

Cap Com: Roger, roll complete.

Grissom: There goes the pitch.

Cap Com: Roger, pitch. You're on your way Molly Brown.

Grissom: Yah, man.

Cap Com: Plus fifty seconds

Grissom: Roger in Mode II delay.

Cap Com: Roger

Young: Cabin pressure holding at 60.

Young: Pressure relieved at 6.5.

Cap Com: 1+40

Grissom: Roger, Mode II.

Cap Com: Roger.

Grissom: DCS update received.

Cap Com: Roger, update

Cap Com: We are a little bit high in the flight plan but no problem Molly Brown.

Grissom: OK Molly Brown is go for staging.

Cap Com: Roger looks good from here.

Grissom: Roger

Grissom: . . . update received

Cap Com: Roger, update

Grissom: OK there is staging.

Cap Com: Roger, stage

Grissom: and we are thrusting.

NS. P. H.

Cap Com: OK thrust looks good from here.

Young? I assume full scale attitude error.

Grissom: OK we are starting to steer.

Grissom: Horizon's about right in view.

Cap Com: Roger.

Young: Our GS is go.

Cap Com: Looks good from here,

Grissom or Young: ?????

Cap Com: Steering is good from here.

Grissom or Young: ??????

Cap Com: Pretty big problem you got there huh

Grissom: Yah

Cap Com: Roger Molly Brown you are go from here.

Grissom: Roger, Molly Brown is go.

Cap Com: Roger, Steering right down the old line.

Grissom: OK ??????????

Cap Com: Stand by for my mark on point 8.

Cap Com: Mark point 8.

Grissom: Good show.

Cap Com: Roger

Cap Com: Roger, you are go Molly Brown.

Grissom: ?????? 30 seconds

Cap Com: Roger

Grissom: ?????

Cap Com: Roger, farings.

Cap Com: OK farings.

Cap Com: Do you have the IVIs

Young: ---- I have 29 now.

Cap Com: Roger, 23 down.

Young: 3 down, 7 right

Cap Com: Roger, 3 down, 7 right

Young: and 23 aft

Cap Com: and 23 aft ok,

Voice: Bermuda command carrier on,

Cap Com: Roger, we have an eightyseven by 125 orbit, Molly Brown.

Cap Com: Molly Brown, Cape Cap Com.

Grissom: Go, Cape,

Cap Com: You have an eighty seven by 125 orbit and I'll get you one Alpha

shortly.

Cap Com: Roger, new one Alpha time is a lapse time of 1812. 18 minutes,

12 seconds.

Young: Roger, 1812.

Cap Com: Roger, right fast John.

Cap Com: Molly Brown, Cape Cap Com.

Astronaut: Go, Cape Cap Com.

Cap Com: Does it look better from there than on a ballistic flight.

Astronaut: Say again.

Cap Com: Does it look better from there than on a ballistic flight.

Grissom: ???????

Cap Com: Roger, How do it look?

Grissom: It look nice,

Cap Com: Rog.

Voice: Canary Cap Com, Cape Flight.

AIR TO GROUND TRANSMISSION

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Voice: Cape Flight, Canary Cap Com go ahead.

Kraft: Have you been copying?

Voice: Affirmative. We have copied all the way.

Kraft: Roger, looks good, Stand by.

Voice: Roger,

Cap Com: Molly Brown, Cape Cap Com.

CC: Bermuda has LOS (loss of signal).

Kraft: Canary Cap Com, Cape Flight.

Canary Cap Com: Go ahead.

Kraft: It looks like he got about 13 feet per second. Actually about 12.6. from his burn of about 15 seconds. You might report that to him.

Canary Cap Com: He got 12 feet per second?

Kraft: 12.6. He had 15 seconds of burn.

Canary Cap Com: Roger.

Kraft: All other systems look very good. Suit temperature was 56, cabin 86.

Canary Cap Com: Roger, copying.

Kraft: The surgeon reported the astronauts were both in good condition.
All other reports from MCC are GO.

Canary Cap Com: Roger, understand.

Kraft: Stand by to copy 21.

Canary Cap Com: Roger.

Kraft: Delta V 139, GMTRC 155547, GETRC 013147, roll left 55, GMTRB 160531, roll right 65.

(Repeated)

Canary Cap Com: Roger.

Canary Cap Com: Canary contact.

Kraft: Roger, Canary.

Canary: Roger read you loud and clear. We have your TM solid all systems look good on the ground. I have you are if you are ready to copy. Do you copy "Molly Brown". Grissom ...

Canary: Roger, Delta V 153 niner GMTRC 15547, GETRC 013147, roll left 55degrees GMTRB 160531, rollright 65 did you copy.

Canary: "molly Brown" Canary Cap Com ... back to you.

Grissom: Roger.

"Molly Brown: Cap Com. Canary:

Request that you place your radio wwitch to the flow position. Canary:

"Molly Brown: Cap Com We are standing by for your UHF Comm check, Do you copy? Canary:

Cap Com Grissom, go ahead. Canary:

Roger we are standing by for your UHF Comm. Canary:

Would you place your radio switch to the flow position. Canary:

Grissom: Roger... UHF is still on number 2

Canary: Stand by for new blood pressure.

Grissom: Blood pressure going down

"Molly Brown" Canary, Cap Com. be advised on your 15 second burn your Canary:

achieved a 12.6 ft. per second. Did you copy.

Grissom: Roger, understand:

I seem to have a pressure leakin my ... because I get a continuous yaw left. Grissom:

Canary: Roger, understand that you get a continuous yaw left.

Grissom: It is very slight, very slow drift.

Canary: Roger. Did you copy Cape.

Kraft: Affirmative.

"Molly Brown: Canary Cap Com, I have your radiator temperature if you are Canary:

ready to copy.

Grissom: Roger.

Canary: Roger, your radiator outlet temperature is off-scale high. Radiator inlet is

is 74.

Roger, off-scale high going back to back ...

Canary: Roger, understand.

"Molly Brown: , Cap Com. Standby to start your clock at 20 minutes CANARY: Did you copy "Molly Brown"? ground elapsed time on my mark. MARK.

Grissom:

Canary: Be advised we have received your blood pressure, "Molly Brown:"

Been advised from the Cape you might put your prop switch off and re-cycle a couple of time and it might stop your leak. Did you copy "Molly Brown"?

Grissom: Copy.

"Molly Brown" Cap Com. Do you copy? Canary:

Grissonm Say again.

Roger, can we have your sea-urchin time again, please? Canary:

Grissom: 20 minutes elapsed.

Canary: Roger, understand.

Canary: LOS.

"Molly Brown, Cap Com. Cape:

Grissom: Cap Com, "Molly Brown"

Cape: Roger, how's your status on that thruster?

Grissom: We're still drifting alittle bit, Gordo, it's not bad, I can hold it with

pulse with no problem. We did loose our primary DC to DC convertors.

Roger, lost your primary DC to DC.

Grissom: Roger.

Have your tried your circuit breaker, Gus, on that.

Grissom: Yea, we have.

Have your tried your circuit breaker to cut off that one eratic thruster?

Grissom: ...

"Molly Brown:" Cap Com. Cape:

Grissom: I read you O.K. Gordo.

Cape: O.K. How's your control system

Grissom:

Roger, I'm reading you weak, but readable

Grissom: ...

Cape: Say again, "Molly Brown".

Grissom: I say, we can't read you, Gordo.

Cape: Roger, I'm bearly reading you also.

Cape: How's your control system, Over.

"Molly Brown" Molly Brown" CSQ, Cap Com.

Grissom: CSQ, this is "Molly Brown"

CSQ: Roger, how is your control system working?

Grissom: Control system working fine. Have a very slight yaw to the left.

CSQ: "Molly Brown: I copy you very weak, Would you say again.

Grissom: All control systems working fine. Have a very slight drift to the left.

CSQ: Roger, understand.

CSQ: Would you confirm that you are on a secondary DC to DC converter?

Grissom: Affirmative.

Are you on secondary ACME? Yaw logic.

Grissom: Negative.

"Molly Brown" CSQ, Cap Com. Are you in the flow position on the radiator?

Grissom: We are on the flow position and we are trying the ACME yaw logic. Switching to yaw logic now.

CSQ: Roger.

CSQ: "molly Brown, CSQ, cap com.

Roger, unable to send a blood pressure the bulb won't fit in the plug

hole anymore.

CSQ: Roger, Cape recommends that you place the driver's switch to secondary.

Grissom: Roger.

CSQ: Molly Brown" CSQ Cap com.

Grissom: Go ahead, CSQ

CSQ: Your inlet temp is 76 degrees. Your outlet temp. 42 degrees

CSQ: "Molly Brown" CSQ.

Grissom: Go ahead.

CSQ: We have not received a blood pressure or an oral temp.

Grissom: The blood pressure bulb won't fit in the hole anymore.

CSQ. Roger.

Grissom: I think the "O" ring is jammed or something.

CSQ: Roger, we're standing by for...

Grissom: Here it comes.

CSQ: "Molly Brown" CSQ. Standy for a GMT time pack.

CSQ: On my mark, GMT will be 151110 MARK.

CSQ: "Molly Brown:" CSQ.

Grissom: Roger, your Mark

CSQ: Roger.

CSQ: "Molly Brown" CSQ

Grissom: Go ahead, CSQ.

CSQ: We copied your respiratory manuever and we have your oral temp. All systems appear go from the ground.

Grissom: Roger.

Cro: "Molly Brown: " this Carnarvon. cap com. Do you read?

Grissom: Loud and clear, Pete. How me?

CRO: Read you same. Can you give us your status please? And the Cape would to know if any of the remedies helped your yaw problem

Grissom: No, none of the remedies helped, and we're go.

CRO: Okay, you have a go from down here for the second orbit and if you will standby I will send you a 2-1 TR in a Gemini orbit.

Grissom: Roger.

CRO: Standby for TR. Okay, "Molly Brown" we got your Gemini load, we could not get TR in. We got a spacecraft reject on TR and it did go in at this time. I would to give you a hack on TR at 3930 in about 10 seconds.

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CRO: Standby on my mark, Mark, 39:30 for TR. Your TR clock is synced with those on the ground and your spacecraft elapse time is synced.

Grissom: Roger, I see the lights of Perth.

CRO: Roger, Understand you see the lights of Perth, I will have a rediator status for you in a minute. And anytime you can give me your GMT blood experiment I would appreciate it.

Grissom: The elapsed time of the blood 50 minute and 18 seconds

CRO: I read 50 minutes and 18 seconds your radiator inlettemp is 72 and radiator out is 38, your looking pretty good.

Grissom: Alright.

CRO: And if John is ready to copy any of this manuever word I have it for you.

Grissom: He's ready to copy.

CRO: Okay, GMTB 154323. Delta V of 139 duration of burn 2 minutes and 39 seconds your GMTRC 15524 roll left 55 GMTRB 164528 roll right 65. GMT 400 ...155823 vour computer load ... and "Molly Brown" Cararnon here you can go secondary coolant loop off and you can go evaporator to normal.

Grissom: Secondary Coolant loop off and evaporator to normal.

CRO: "Molly Brown" CRO Cap Com.

Grissom: Go ahead.

CRO: Roger, Your Texas burn will be 48 feet per second for 73 seconds.

Grissom: 48 feet per second for 73 seconds.

CRO: We got your TR Gemini load in and your clocks look good on the ground and everything is go here. See you next trip.

Grissom: Roger.

CRO: "Molly Brown" CRO, Cap Com.

Cape: "Molly Brown' Cap Com.

Grissom: Cape, "Molly Brown" Go ahead.

Cape: Roger, "Molly Brown, Cape, Cap Com. Now we're going to have you leave your propellant switch on and do the Texas burn and we will watch your fuel usage across the States, if it continues we will have you turn your propellant switches off when you are over the Cape next time, except when you need to use fuel. .. we will leave the propellant switch on for the Texas burn and then watch the depletion.

Cape: Roger. Leave it on until after the Texas burn and then we will watch your leakage. If it continues to leak we will have you turn them off over the Cape.

Grissom: We can tell if we are using any fuel out of this thing or not.

Cape: Okay, fine we're not overly comerned, its just that we would like to get a handle on what is causing it here. Your o2 pressure is off the scale on the high side by telemetry.

Grissom: Say again, Gordo.

Cape: Your oxygen your 02 pressure is off the high side of the scale. You may have had that switch failure in there. You may have had a telemetry failure in there, that failed off to the high side.

Grissom: Roger, and Gordo .

Cape: Go ahead.

Grissom: The primary scanners

Cape: Did you say, "Primary scamers"?

Grissom: Affirmative.

Cape: Okay. Can you give us a helium source pressure?

Grissom: Say again.

Cape: What is your helium source pressure?

Grissom: ...

RKV: What is your status, Molly Brown?

Grissom: My status is go. We did drain the ECS 02....

RKV: Roger I have transmitted a TR on the Gemini load for your maneuver over Corpus.

RKV: Confirm you are in catch up. Over.

Grissom: Affirmative. We are in catch up now.

RKV: Roger. I'll re-transmit the load.

RKV; Roger. You have a load in the catch up for your maneuver.
You are go for the next orbit.

Grissom: Roger.

RKV: Are you ready to copy your maneuvertime?

Grissom: Stand by:

RKV: Roger.

Grissom: We are ready to copy.

RKV: Roger, you are GMTB, 155700. Your ground elapsed time toburn 012300. Your Delta V of the burn 048, the length of burn 0114.

Grissom: Roger, we copied .

RKV: Roger, stand by for a GDT time hack. On my mark it will be 85 minutes and 45 seconds. Stand by Mark. Do you copy?

Grissom: Roger, we copy:

RKV: Roger, you look good on the ground. Would you give me a readout of core 25, 26 and 27.7 Molly Brown, RKV Cap Com.

Grissom: Go ahead RKV, Molly Brown.

RKV: Would you give me a readout on your computer core 25, 26, and 27?

Grissom: Roger, 25 was minus 0480, 26 and 27 were all zeros. Over.

RKV: I concur. Molly Brown can you give me a readout of your OAMS helium source pressure temperature and your propellant quantity guage?

Grissom: Propellant quantity guage reading was . . . stand by and I'll give you the other. Source pressure is 2450, source temperature is 85 degrees, fuel and oxidizer regulated at 295 with 68 degrees.

RKV: Roger, 295 at 68. Say again your propellant quantity.

Grissom: Propollant quantity is 84 percent.

RKV: Roger, I copy.

RKV: Molly Brown, RKV standing by if you have anything else.

Grissom: Roger, we're in good shape.

RKV: Molly Brown, RKV. I'm getting an indication of OAMS thrust forward firing. I have negative OAMS yaw firing on the ground.

Grissom: We're not doing any firing. We haven't touched the handle.

RKV: Roger

RKV: Molly Brown, stand by for Guaymas.

Grissom: Roger.

GYM: Molly Brown, Guaymas Cap Com.

Grissom: Guaymas, Molly Brown.

GYM: Guaymas standing by.

Grissom: Roger.

GYM: Molly Brown, Guaymas handing over to Texas.

TEX: Molly Brown, Texas Cap Com.

Grissom: Read you loud and clear, Texas.

TEX: Roger, Texas standing by for your maneuver.

Grissom: All right.

Grissom: Twenty seconds to burn. Got that, Texas?

TEX: Roger.

Air to Ground Transmission

Cape Cap Com: Molly Brown - Cape Cap Com.

Grissom: Molly Brown - Cape Cap Com.

Cape Cap Com: Look better from there than on a ballistic flight?

Grissom: Say again.

Cape Cap Com: Look better from there than on a ballistic flight?

Grissom: Can't read you, Gordo.

Cape Cap Com: Roger. How do it look?

Grissom: It look great.

Cape Cap Com: Rog.

Cape Cap Com: Molly Brown - Cape Cap Com.

Grissom: Twenty seconds to burn. Copying. Texas?

TEX: Roger.

Grissom: Three seconds. Mark.

TEX: Roger. Texas confirms OAMS thrusters fired.

Kraft: Roger, Texas.

TEX: Molly Brown - how are your attitudes holding?

Grissom: Perfect.

TEX: Roger.

Grissom: Seven feet per second to go. Thruster complete. When we started out the IVI's were reading 51 feet per second. I burned down to 2 feet per second aft. As I started to burn my IVI's read 51 feet per second and I burned down to the place where they read 2 feet per second. Two. Zero zero two. The propellant quantity is 65 percent.

Cape Cap Com: Molly Brown - Cape Cap Com.

Grissom: Go ahead, Gordo.

Cape Cap Com: Roger. Do you want to get your transmitter up to start your take down. Ready for your take down. Okay, Molly Brown, looks like your OAMS has leveled out for your burn, can you give us OAMS source pressure and temp again now? Molly Brown - Cape Cap Com.

Grissom: Yes sir, source pressure is at two thousand and fifty; source temperature is 56.

(OVER)

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Cape Cap Com: Roger. It looks like the pressure switch on the 02 is failed. Your probably better bring that 02 heater from automatic to off and then manually control the temp from then on == the pressure from then on.

Grissom: And by going to high rate you can bring it off the peg. Over.

Cape Cape Com: Okay, you can bring it off the peg by going to high rate. Is that affirm?

Grissom: (garbled)

Cape Cap Com: Okay. I have a time for when you 11 be nearest the booster. Would you like to have that so you can look for it.

Grissom: Roger.

Cape Cap Com: Roger. 02 plus zero eight plus five two will be dead ahead at an elevation of plus eight zero degrees at one niner miles. This will be just prior to darkness. It should be very bright. Proceed to see if you can rendezvous.

Grissom: Rog.

Cape Cap Com: We re sending you a load now.

Grissom: Roger. DCS load received.

Cape Cap Com: Roger. I got you loaded.

Grissom: We had another DCS load just end, too.

Cape Cap Com: That was the actual values. First one was the PR.

Grissom: Roger

Cape Cap Com: Molly Brown, this is Cape Cap Com, Did you get your experiments in the first orbit?

Cape Cap Com: Molly Brown, Cape Cap Com.

Grissom: Thank you, Cap Com.

Cape Cap Com: Roger, we just want to get a confirmation that you got your experiments on time for the first orbit.

Grissom: Roger, we got them on time.

Cape Cap Com: Roger

Cape Cap Com: Everything looks good down here

Grissom: Roger

Cape Cap Com: Okay, Bermuda command carry on.

Cape Cap Com: Molly Brown, Cape Cap Com. Our memory loads.....to confirm your loads were correct, and you might delete all themBIU read outs.

Grissom: Okay,

Air to Ground Transmission

Grissom: Is your blood pressure down there.....

Cape Cap Com: Okay

Cape Cap Com: Cape Com is complete, Molly Brown.

Grissom: Aye.

Grissom: Tape playback complete MCC.

Cape Cap Com: Affirmative

Grissom: Roger

Cape Cap Com: You still got a blood pressure John? We didn't read it.

Young:I'll give you another one.

Cape Cap Com: Okay, just wondering if you were breathing.

Grissom: Do you want to give me a time of the horizon scan check.

Grissom: Cape Cap Com, give me a mark now.

Cape Cap Com: Go ahead, Molly Brown Cape Cap Com.

Grissom: Give me a time of the horizon scan check.

Cape Cap Com: Okay, sunset time is 16+34, stand-by I'll get you the horizon scanner.

Cape Cap Com: That's the time Molly Brown-16+34

Grissom: Aye.

Cape Cap Com: Pretty spectaclar up there, huh?

Grissom: Say again.

Cape Cap Com. Pretty spectaclar up there, huh?

Grissom: Yes, it really is, it really is.

Grissom: There isn't much to see though.

Cape Cap Com: Clouded over? To many clouds huh?

CYI Cap Com: Molly Brown, this is Carnary Cap Com

Grissom: Carnary Cap Com, Molly Brown, go ahead

Carnary Cap Com: Roger, we have systems go on the ground

Grissom: Roger, ... alignment check.

Carnary Cap Com: Roger, understand and Carnary, ... calibrate command.

Grissom: Okay, coming. (OVER)

Air to Ground Transmission

Canary Cap Com: Molly Brown this is Carnary Cap Com.

Molly Brown: Go Canary

Canary Cap Com: Roger, after your burn your orbit is 85.6 by 92.6. Did you copy?

Grissom: Roger, 85,6 92,6,

Canary Cap Com: And I have a 2 Bravo time.

Grissom: I'll stand by.

Grissom: Canary, I hope you have the two Bravo time.

Canary Cap Com: Delta V 90 GMTRC 16 52 25. GETRC 02 28 35. Roll left 55.

Delta V

Grissom: Roger, 2 Bravo/90 GMTRC 16 52 25 GETRC 02 28 35 Go left 55,

AIR-GROUND TRANSMISSION

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CSQ: Mclly Brown, CSQ Cape Cap Com. Do you read?

Grissom: Roger, read you weak but clear. We have you . . .

CSQ: Molly Brown, CSQ Cap Com. We're standing by for the maneuver.

CSQ: Molly Brown, CSQ. Would you give us your TVI readouts. before and after the burn?

Young: . . .

CSQ: Roger, understand 10 feet per second forward.

Young: Ten feet per second forward.

CSQ: Roger.

Young: . . .

CSQ: Molly Brown, CSQ, be advised I sent TX twice on that spacecraft reject and I'll try again.

CSQ: Molly Brown, CSQ. We still cannot get MAT back from the spacecraft on TX.

Young: Roger, I sent the TX . . . Over.

CSQ: Say again. Molly Brown, CSQ. How did your attitude go during the maneuver? Young:

CSQ: Roger

CSQ: Molly Brown, CSQ:

Young: Go ahead.

CSQ: You still look good from the ground here.

CSQ: Molly Brown, CSQ Cap Com.

Young: Go ahead.

CSQ: Would you give us a propellant quantity readout before and after the burn?

Young: Before the burn it was 66 percent . . .

CSQ: Molly Brown, say again.

Young: Sixty-six percent before and 61 percent after.

(OVER)

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AIR-GROUND TRANSMISSION

CSQ: Roger.

Young: I'm not real sure of that before burn.

CSQ: There becks like its in the ball park.

CRO: ACME logic, yaw rate, gyros and attitude drivers now . . . on primary.

Grissom: Affirmative.

CRO: Clay you sight all the other stuff? Sounds to me like you've got a mechanism' promise in the valve. Is that what you figure?

Grissman Hoger, it must be very, very slight. You can't see the pressure go

The second you have turned off the three four seven and eight yaw circuit leakers and put them back on again and that didn't have any affect.

Grisson: Yea, we've gone through everything, Pete.

Control by the Green's compling.

Rolling Rayley

you a load. Your TR is good. I don't have your clock counting down with mine. I guess you have a different . . . We got your blood pressure and your clocks are on as far as SET goes.

Grissom: Roger

ited, the state of the state of

 $(1,1,\dots,n-1) = (1,2,\dots,n-1) \times (2,2,\dots,n-1)$

CRO: In process, Roger to the large a go down here from everybody and do you have suit temp for the place of

Grander of the transfer of the proof. Pater We're OK.

CRO; Sighta,

The control of the man Carnaryon.

with the realtime telemetry off after LOS from Carnarvon, please.

Animon: Form realtime off after Carnarvon.

CRO: Yea, we couldn't get a TX up to you.

CRO: Molly Brown, this is Carnarvon. How do you read?

Grissom: Still read loud and clear.

CRO: OK, you've got the go, Gus, you look good here on the ground and we'll see you. Fasten your belt.

Grissom: Roger, I can keep em up.

HAW: Molly Brown, this is Hawaii Cap Com.

Grissom: Hello Hawaii, this is Molly Brown.

HAW: Confirm your telemetry in real time and acq.

Grissom: Telemetry is in real time and acq.

Grissom: Hey, Neil

HAW: Yea. Go ahead, Molly Brown.

Grissom: The eight ball here is giving us minus. Evidently the scanners on the yaw rate controllers . . .

HAW: Say again, Molly Brown, I didn't understand.

Grissom: The attitude on the eight ball is drifting badly . . . trying to get a line on it now.

HAW: CK understand the eight ball attitude is drifting badly. You have a go from the ground.

Grissom: Good.

HAW: We're ready to uplink a 4-1 TR to you.

Grissom: Go ahead and send it.

HAW: CK, sending now.

HAW: And, we'd like to send you a TX as soon as you are ready.

Young: Uplink received TR. Send TX. Over.

HAW: All right sending TX now. And we confirm your TR.in sync. Give us a time hack when you start your . . . guage corelation check.

Young: Roger, mark the guage corelation check.

HAW: Roger, got it.

HAW: Molly Brown, Hawaii Cap Com. Are both your attitude indicators drifting together?

Grissom: Affirmative.

AIR-GROUND TRANSMISSION

HAW: OK

HAW: Molly Brown, Hawaii Cap Com. Everything looks good on the ground. We'll see you next time around. Aloha.

Grissom: Roger.

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Air to Ground Transmission

RKV Cap Com: Molly Brown RKV Cap Com, Over.

Grissom: RKV, this is Molly Brown

RKV Cap Com: Roger, we are standing by for your respiratory maneuver. Over

Grissom: Roger.

RKV Cap Com: Roger, we copy. We are standing by for your pilots oral temp and blood

pressure.

Grissom: Blood pressure coming.

RKV Car Com: Roger

Grissom: RKV, Molly Brown .

RKV Car Com: Stand-by one. Roger, go ahead and give me the blood pressure Molly Brown. RKV, Molly Brown, we have received your blood pressure and temperature.

Grissom: Roger, RKV.

RKV Cap Com: Go ahead

Grissom: Garbled.....

RKV Cap Com: Molly Brown, RKV Cap Com.

Grissom: Go ahead.

RKV Cap Com: If your are drifting in your roll and orbit rates, suggest you select a mode of your own, for your tracking test coming up on the coast.

Grissom: Roger.

RKV Cap Com: Molly Brown this is RKV, you are looking good here on the ground. Do you have any further comments? We are standing by.

Grissom: Negative

RKV Cap Com: Roger, Guaymas will be next.

GYM Cap Com: Molly Brown this is Guaymas Cap Com.

Grissom: Roger, Molly Brown

Gym Cap Com: Your three alfa times are nominal.

Grissom: Roger, alfa nominal.

GYM Cap Com: We are standing by for your coolant pump check.

Gissom:Guaymas

GYM Cap Com: Standing by, re-report on your cooling pump check

(OVER)

Air to Ground Transmission

GYM Cap Com: Molly Brown, this is Gauymas. Have you finished your cooling pump checks?

Grissom:cooling pump test.

GYM Cap Com: Roger, what is the status of the checks?

Grissom:

GYM Cap Com: Say again Molly Brown, you are broken.

Grissom: We could get the pumps on simultaneous.

GYM Cap Com: I copy, We could not get the pumps on simultaneously.

GYM Cap Com: Gauymas standing by for you stand-by TM. Real Time modulation check.

GYM Cap Com: Molly Brown, This is GYM Cap Com.

Grissom: Go ahead, Gauymas.

GYM Cap Com: We are standing by for your stand-by telemetry Fransmitter check with real time.

Grissom: Stand-by for real time.

GYM Cap Com: Roger. Molly Brown, that TM check is okay on the ground,

GYM Cap Com: Molly Brown, this is Gauymas, would you say again the trouble you had with your pump check.

Grissom: We had no trouble with the pump.

GYM Cap Com: Roger. Would you remove pump A off of primary?

Grissom: Pump off that.

GYM Cap Com: Molly Brown this is Gauymas handing over the Tex.

Cape Cap Com: Molly Brown, Cape Cap Com.

Grissom: Go ahead Cape Cap Com.

Cape Cap Com: Alright, do you have your stand-by telemetry transmitter on ready for a tape down? Alright you areon.... What is the status of your other platform modes. Molly Brown? BEF fray?

Grissom: Say again.

such as

Cape Cap Com: What is the status of your other platform modes Molly Brown,/BEF and fray.

Grissom: Well BEF is fine, the other reading is what drives me off on roll. I haven't checked BEF yet, I'll run a check now.

Cape Cap Com: Okay. How long does it take you to build up a quarter degree rate in that yaw rate, starting from zero yaw rate.

Grissom: It oradually excelerates. Its some slow look out there

Air to Ground Transmittion

Cape Cap Com: Roger, are you satisfied with obtaining holding your attitudes visually?

Grissom: Roger, the platform is aligning us, properly in SEF

Cape Cap Com: Okay fine. Do you want to turn your stand-by transmitter off?

Grissom: Stand=by transmitter off.

Cape Cap Com: Roger. Have you tried secondary scanner?

on

Grissom: Roger, we were/secondary scanner for quite awhile, we are back on primary now.

Cape Cap Com: Okay, if you think the platform is drifting too much after that control modes characteristic check, you can just delete that. 3+30

Grissom: Roger, I deleted the one.

Cape Cap Com: The one earlier?

Grissom: Yes.

Cape Cap Com: Okay. I have your 4-1 weather for you.

Grissom: Roger.

Cape Cap Com: Roger it is broken cloud condition, 20 miles visibility, wind is 20 knots, 5 ft. seas.

Grisson: Roger. 20 and 5

Cape Cap Com: Roger, did you have any success on contact with the booster.

Grissom: we were facing the wrong way at that time, making a horizon scanner check.

Cape Cap Com: Yes, I was afraid you would be. That was alittle bit tight in there.

Grissom: Yea.

Cape Cap Com: Did you manage to see anything over the US because of clouds?

Grissom: We could see the southern part of California and Arizona I guess that was about it.

Cape Cap Com: Did you ever get your real time telemetry and ack aid on. How is the weather generally around the world?

Grissom: Very cloudy

Cape Cap Com: I see

Grissom: Seeing very little land.

Cape Cap Com: Than and blue water.

Grissom:much water

(OVER)

Page #24 Air to Ground Transmission

Grissom: We just not a DCS up=date, Gordo, going over that TX.

Cape Cap Com: Roger, Wa got it verified. TR looks good Molly Brown.

Cape Cap Com: Molly Brown, Cape Cap Com.

Grissom: Go ahead.

Cape Cap Com: we understand that you don't have this rolling off in the free mode. Is that affirmation?

Grissom: I don't have .sh..any SEF and BEF mode, Gordo, I haven't check the...give me another few rimutes.

Cape Cap Com: On Okay, fine.

Grissom: ... plateform lines properly into the BEF mode, I tried it already.

Cape Cap Com: Ckay, real good

Cape Cap Com: We have verification on your load Molly Brown, looks good.

Cape Cap Com: Molly Brown, did you get a chance to check that free mode yet?

Grissom: In free mode now of seems like it is working alright.

Cape Cap Com: Very good, We were sort of interested in that.

Cape Cap Com: Molly Brown, Cape Cap Com

Grissom: Go ahead.

Cape Cap Com : We would like for you to turn that cabin fan on for 2 minutes and thea back off for a little experiment.

Grissom Fan is on

Cape Cap Com: Okay. Molly Brown, Cape Cap Com:

Grissom: Go ahead

Cape Cap Com: That next normal burn will be a delta V of 96.

Grissom: Roger, Next burn will be 96,

Cape Cap Com: Roger the time on that will be 1+49.

Grissom: 1+49 seconds. Garbled.

Cape Cap Com: Okay

AIR-GROUND TRANSMISSION

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CSQ: Molly Brown, CSQ Cap Com.

Grissom: CSQ this is Molly Brown, go ahead.

CSQ: Roger, what s your status?

Grissom: We're go.

CSQ: Roger, you look good from the ground. Stand by to copy pre-bravo times.

Grissom: Roger.

CSQ: Molly Brown, CSQ. Let me know when you're ready.

Grissom: Roger, we're ready.

CSQ: GMTRC 183758, ground elapse time 041358, bank angle, roll left **55**, Delta V 93. Molly Brown, CSQ. Did you copy?

Young: GMTRC is 183758.

CSQ: Roger.

Young: Bank angle 55 left. Delta V 93.

CSQ: Roger. Molly Brown, CSQ Cap Com. Cape recommends you perform your OAMS retroburn in BEF after alignment.and stay in BEF up to retro-fire.

Grissom: Roger. We agree with that.

CSQ: Molly Brown, CSQ. Haveyou started your retro-fire check list?

Grissom: Roger.

CSQ: Molly Brown, CSQ. Stand by for a GMT time hack.

Grissom: Roger.

CSQ: On my mark, GMT will be 181440. Mark.

Grissom: Give me one on another count.

CSQ: Roger. Mark.

Grissom: Roger.

CSQ: We're standing by for your sea urchin egg experiment.

Grissom: Roger . . .

CSQ: Roger, will you give me a GMT when you turn the handle.

(OVER)

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Grissom: Roger, GMT yours. Fifteen 20.

CSQ: Roger.

CRO: Molly Brown, Carnarvon Cap Com stand by for TR mark of 3400 in approximately 30 seconds.

Grissom: Roger.

CRO: 5, 4, 3, 2, 1, mark. TR 3400.

Grissom: Roger, clock is counting down.

CRO: Molly Brown, Carnarvon. The medics would like to get your respiratory maneuved when you get a chance.

Grissom: Roger, upcoming. (Sound of breathing)

CRO: Molly Brown, Carnarvon has it loud and clear.

Grissom: . . .

CRO: This is Carnarvon, Molly Brown, say again.

Grissom: What's this GMT retro-fire you gave us?

CRO: Say again.

Grissom:: What is the GMT retro-fire you just gave us?

CRO: Roger, the GMTRC is 185723 for a GTTRC 043323. Molly Brown, Carnarvon. Do you want the rest of the quantities, the Cape said it wasn't necessary unless you want trem.

Grissom: . . .

CRO: Molly Brown, this is Carnarvon.

Grissom: Go ahead.

CRO: Cape recommends I give you your backup quantities for GMTRC 185723 will be a roll left 55, GMTRB 190823 roll right 65, and GMT 400K 190129.

Grissom: We got it, Pete.

CRO: OK Gus. My had one question for you before you go over the hill

CRO: Pete to GT=3. I'll see you next pass next year.

Grissom: OK

HAW: Hello Molly Brown. Hawaii Cap Com.

Grissom: Hawaii, Molly Brown. All ready to burn.

HAW: Roger give us a hack on your event timer.

Grissom: OK, it will be at 12:55 on my mark. The .

HAW: Right. We're right on. Hawaii has radar contact.

Grissom: . . .

HAW: Roger and give us a start when you burn.

Grissom: Roger . . .

Grissom: . . . getting ready to fire. Mark.

HAW: We've got your start of burn.

Grissom: That's good.

Grissom: . . There's 80, 70, 60, 50, 40, that's 20, 10,

HAW: Hawaii command carrier off.

Grissom: Mark. End of burn.

HAW: That's mark end of burn. Good show.

HAW: Give US your IVI reading.

Grissom: IVI reads ... and up for two. There's the end of burn.

HAW: OK and how did your attitude look?

Grissom: Attitude looked right on plus or minus two or three degrees.

HAW: OK. You looked good on the ground.

Grissom: Right. . . . indicated 22 percent. You got that Neil?

HAW: Twenty percent, right?

Grissom: No. 22.

HAW: OK.

RKV: Molly Brown, RKV Cap Com.

Grissom: Say again.

RKV: Molly Brown, RKV Cap Com. How do you read?

Grissom: Read you loud and clear RKV.

RKV: Roger, have you completed your TR-5 check list?

Grissom: Roger.

AIR GROUND TRANSMISSION

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RKV Cap Com: Molly Brown, RKV.

Grissom: The adapter's separated.

RKV: Roger, we confirm on the ground. Adapter sep.

Grissom: , , , , ,

RKV: Say again.

Grissom: I could feel it kick off.

RKV: Roger. Looks like you had a good kick-off on adapter sep.

Grissom: I am over . . .

RKV: Roger, confirm.

Grissom: I get a retro.

RKV: Rocket three. - rocket two - rocket number 4. Molly Brown, do you confirm all rocket firing normally?

Grissom: All rocket fired timely and attitude's right in the center.

RKV: Roger, pass your IVI readout to Guaymas. RKV out.

Guaymas: Molly Brown, Guaymas Cap Com. Do you copy?

Grissom: Roger, the IVI reads to a 331 amps, 105 right and 4 up. Right in the center. An automatice superfine retrofire downthe line.

Guaymas: Roger, I copy. 331 amps, right 105 down 04.

Grissom: Roger, retropack is jettisoned.

Guaymas: Roger.

Guaymas: Molly Brown, Guaymas Cap Com.

Grissom: Go, I'm ready.

Guaymas: I'm prepared to give you a TR plus 3 minute time hack if you need it.

Grissom: That'd be good.

Guaymas: OK. Now I have some in depth times for reentry. 400 K feet, 19 10 29. Stand by, Molly Brown.

AIR GROUND TRANSMISSION

Guaymas: Molly Brown, correct my 400 K feet. That's 19 01 29.

Grissom: Roger.

Guaymas: Molly Brown, I'll give you a time hack in approximately 30 seconds.

Guaymas: Molly Brown, stand by for a TR plus 3 minute time hack. 5, 4, 3, 2,

1, mark. Do you copy?

Grissom: Yes. we got it.

Guaymas: Molly Brown, stand by for Texas.

Cap Com: Molly Brown, Cape Cap Com.

Grissom: Molly Brown, here. Go ahead.

Cape: Roger. I'm getting your bank angle times momentarily. Your start of communications experiment 19 05 14.

Grissom: Roger. I have . . .

Cape: I didn't read you on that.

Grissom: I'm getting initial bank angle command.

Cape: OK.

Cape: Molly Brown, I have your backup times on bank angle and times reverse bank angle.

Grissom: Coop, go ahead.

Cape: Bank left 45 degrees, back right 55 degrees - time to reverse bank angle 19 08 17.

Grissom: Give me the left

Cape: Stand by one.

Grissom: I am hauling to the 60 degrees left.

Cape: Roger, bank left 45.

Grissom: I mean 45.

Cape: 10 plus 54 after retro. Reverse bank angle.

Grissom: Say again, Coop.

Cape: Time from retrofire to reverse bank angle is 10 54 - ten minutes, 54 seconds.

Cape: Cape Cap Com, Molly Brown, transmitting to you in blackout for communications experiment. Over.

Cape: Molly Brown, Cape Cap Com, transmitting to you for communications test - over.

Cape: Molly Brown, Cape Cap Com, transmitting to you for communications experiment - over.

Cape: Molly Brown, Cape Cap Com, with a 1, 2, 3, 4, 5, 4, 3, 2, 1. Over.

Cape: Moliy Brown, 1, 2, 3, 4, 5, 4, 3, 2, 1.

Cape: Molly Brown, Cape Cap Com, with a 1, 2, 3, 4, 5, 4, 3, 2, 1.

Cape: Molly Brown, Cape Cap Com, transmitting for communications experiment -1, 2, 3, 4, 5, 4, 3, 2, 1. Over.

Cape: Molly Brown, Cape Cap Com, with a 1, 2, 3, 4, 5, 4, 3, 2, 1,

Cape: Molly Brown, Cape Cap Com, over.

Grissom: . . .

Cape: Cape Cap Com, Molly Brown. Go ahead, Molly Brown.

Cape: Molly Brown, are you reading Cape Cap Com now. Over.

Cape: Hell, dere,

Grissom: Roger. We copy you loud and clear like we should. We'll be about 25 miles short.

Cape: Roger, indicating about 25 miles short on your computer. Very good. I have a drogue time 19 10 42 - what is your altimeter reading?

Grissom: 70,000.

Cape: Did you say 70,000?

Grissom: Affirmative.

Cape; Roger.

Grissom: Yes, we have a drogue.

Cape: Roger, drogue. Looks pretty good, doesn't it?

Grissom: . . . it's really out there,

Cape: Roger.

Grissom:

Cape: Roger. Approximately one minute for main.

Grissom: Hey, Intrepid, this is Molly Brown.

Cape: Roger, go ahead.

Cape: Molly Brown, Cape Cap Com, how's your main?

Grissom: I don't have a main yet - . . 50,000.

Cape: Roger.

Cape: Molly Brown, how's your main. Over.

Grissom: Oh, man!

Cape: Molly Brown, Cape Cap Com.

Grisson: Out.

Cape: Roger, we're reading you now and then - how us?

Grissom: Loud and clear. I have . . . rate of descent, passing through 5,500.

Cape: Roger, 5,500.

Cape: Molly Brown, Cape Cap Com. The carrier has a solid communications lock on you now.

Ship: Your chute is right above us.

Cape: Roger, understnad the drogue is right above you. The pilot chute,

Cape: Have you got the carrier deck in sight yet, Molly Brown?

Cape: Molly Brown, Cape Cap Com.

Air to Ground Transmission

Aircraft: One jumper on the way and shute open

Cap Com: Roger

Aircraft: . . . jumper on the way, sir.

. do you copy.

Cape Cap Com: Roger, understand, one jumper is in the water.

Aircraft: Roger, he hasn't splashed as yet.

CapeCC: OK he's on the shute, huh.

Aircraft: . . . progress?

Cape Cap Com: Go ahead Big Box 15, Cape Cap com here.

Aircraft: Cape this is Big Box 15.

Cap Cap Com: Roger, go ahead. Cap Com here.

Aircraft: Molly Brown, Big Box 15...we have a jumper about 10 yards. . . . at this time.

Cape Cap Com: Roger, read you loud and clear.

Aircraft: We have one jumper in the water at approximately 10 yards from the

capsule. A second jumper on final at this time, over.

Cape Cap Com: Roger, read you loud and clear on that.

Aircraft: Roger, read you loud and clear on this frequency. There is no

transmission from Molly Brown at this time.

Cape Cap Com: Roger, understand.

Aircraft: . . . Calling Molly Brown. . . do you read?

Grissom: Roger, five square.

Aircraft: We have a jumper about 10 yards away.

Cape Cap Com: Understand you are in communication with Molly Brown, over.

Aircraft: 1 am swinging in with it. . . . on my final pass. . .55 miles away

Aircraft: Sent jumper away -- shute open.

Cape Cap Com: It will be about 50 minutes before the carrier is there, over

Aircraft: Roger, understand 50 minutes. . . 55. . . one in the bag and two in

the drink.