[redacted]

04 36 33	P	But I want to get out and shoot some good pictures. I'm not satisfied with that. Okay, I'm drifting down underneath the spacecraft.
04 36 40	C	Okay. I'm going to start firing the thrusters now.
04 36 45	P	All right. There's no difficulty in recontacting the spacecraft. It's all very soft, particularly as long as you move nice and slow. I'm very thankful to have the experience. It's great, Gus. Right now I'm right on top of the spacecraft – just above Jim's window. I'll bring myself in and put myself out into your view, Jim.
04 37 09	C	Okay. Hold it and I'll take your picture.
04 37 24	P	Right now I could maneuver much better if I didn't have the gun with the camera on it, because I have to tie one hand up with it.
04 37 31	C	Okay. Stay right there if you can.
04 37 47	C	Okay, do you want me to maneuver for you now, Ed?
04 37 50	P	No, I think you're doing fine. What I'd like to do is get all the way out, Jim, and get a picture of the whole spacecraft. I don't seem to be doing that.
04 38 00	C	Yes, I noticed that. You can't seem to get far enough away.
04 38 02	P	No.
04 38 05	C	Where are you now? Am I clear to thrust a little bit?
04 38 07	P	No, don't thrust now.
04 38 12	C	Okay. Ed, just free-float around. Right now we're pointing just about straight down at the ground.
04 38 14	P	Okay, now I'm taking a look back at the adapter and equipment back there. I can see the separation plane; it's quite clean. The thrusters are clean. The thermal paint, the thermal stripping looks quite good. Also, the velcro that we put on seems to be in good shape right by the camera. I'm coming back down on the spacecraft. I can sit up here and see the whole California coast.
04 38 58	P	Okay. Now I'm going to go out and see how much ..... if I've got enough harness.
04 39 26	P	The sky sure is black.

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04 39 34	C	Hey, Ed, can you see into the right-hand hatch, right now?
04 39 37	P	No.
04 39 38	C	Aw, shoot!
04 39 41	P	Let me work on back. Listen, it's all the difference in the world with this gun. When that gun was working, I was maneuvering all around.
04 39 50	C	.....
04 39 52	P	Yes. Okay.
04 40 20	P	..... contacted.
04 40 22	C	Yes.
04 40 24	P	How are you doing old buddy?
04 40 26	C	Pretty good. How about you?
04 40 28	P	Good. Looking right in your window.
04 40 31	C	Where? You're not even there. Are you there, Ed?
04 40 32	P	No, I'm moving out now.
04 40 34	C	Let me take a picture.
04 40 53	P	Okay, there I go. No. Boy, I sure could use that gun.
04 40 53	C	A pretty neat little contraption, huh?
04 40 55	P	Yes. All the strings that are attached to me tend to dampen out my travel on the lanyard.
04 41 04	CC	Gemini 4, Houston CAP COM.
04 41 09	C	Yes, I noticed that.
04 41 10	CC	You've got 4 minutes and 30 seconds left.
04 41 10	P	Okay, I'm going to free drift a little bit, and see if I can drift into some good picture-taking position.
04 41 16	C	Okay. Here, let me control the spacecraft .....
04 41 33	C	Just for your information Ed, we're only down to 48 percent on our O_2.
04 41 38	P	Okay.
04 41 40	C	ECS O_2 pressure is about 830, so it's staying right up there.

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04 41 45	P	You know one thing about this. Where we have this tether attached, I can't get a good push off.
04 41 52	C	Oh yes, is that right? Where it's attached to you or where it's attached to the spacecraft?
04 42 00	P	Where it's attached to the spacecraft. There's nothing particularly to get a push off on. Now, let's see if I can get a decent push off. If I didn't have the gun I could do a little better. There just isn't anything to push on.
04 42 01	CC	Gemini 4, Houston CAP COM.
04 42 07	CC	Gemini 4, Houston CAP COM.
04 42 19	C	Ed, smile.
04 42 26	P	I'm looking right down your gun barrel. Al right.
04 42 28	C	Let me take a closeup picture of you.
04 42 30	P	Okay. Just a minute.
04 42 31	C	You smeared up my windshield, you dirty dog!
04 42 34	P	Did I really?
04 42 35	C	Yes.
04 42 37	P	Well, hand me out a kleenex and I'll clean it.
04 42 40	C	Ha! See how it's all smeared up there?
04 42 44	P	Yes.
04 42 45	C	It looks like there is a coating on the outside and you've rubbed it off.
04 42 47	P	Yes.
04 42 50	C	That's exactly what you've done.
04 42 53	P	Okay.
04 42 53	CC	Gemini 4, Houston CAP COM.
04 42 54	CC	Gemini 4, Houston CAP COM.
04 42 55	C	Okay. Right now, the spacecraft rates are up about 1 deg/sec in pitch and yaw, and about 1/2 deg/sec in roll.
04 43 05	P	I'm not satisfied with the pictures that I've gotten yet.
04 43 10	C	Okay.
04 43 14	CC	Houston CAP COM.

04 43 15	C	We've been tumbling around. I don't even know exactly where we are, but it looks like we're about over Texas.
04 43 24	CC	Gemini 4, Houston CAP COM.
04 43 25	C	As a matter of fact, you know that looks like Houston down below us.
04 43 31	P	I believe it is, Jim.
04 43 33	C	Sure is, I – hey, Gus, I don't know if you can read, but we're right over Houston.
04 43 34	CC	Gemini 4, Houston CAP COM.
04 43 35	P	That's right. I'm looking right down on Houston.
04 43 40	C	Run out and look!
04 43 41	CC	Gemini 4, Gemini 4, Houston CAP COM.
04 43 42	P	My golly! I'm looking right in the bay there.
04 43 45	C	Yes, that's Galveston Bay right there.
04 43 46	P	Yes.
04 43 47	C	Ed, can you see in your side of the spacecraft?
04 43 50	P	Let me get a picture of it.
04 43 54	C	Can you see the camera here?
04 43 55	P	Yes.
04 43 57	C	Is it pointing at you?
04 43 58	P	No, not now. I'm out of it.
04 44 00	C	Which way?
04 44 02	P	I'm behind the adapter. I'm trying to get some pictures. I'm right above my hatch now.
04 44 08	C	Okay.
04 44 10	CC	Gemini 4, Houston.
04 44 15	CC	Gemini 4, Houston.
04 44 16	P	Yes, sir. If I had about another couple of bottles, Jim .....
04 44 20	C	That would really be it, huh?
04 44 22	P	Yes. I'm still not satisfied with the pictures I'm getting. I've only gotten about three or four.
04 44 24	CC	Gemini 4, Houston.

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04 44 28	CC	Gemini 4, Houston.
04 44 33	C	Is that right? I've taken a lot, but they're not very good. You're in too close for most of them.
04 44 40	P	Okay.
04 44 41	C	I finally put the focus down to about 8 feet or so. Oh yes, that's great, the clouds on water behind you.
04 44 45	CC	Gemini 4, Houston.
04 44 53	P	Okay. I'm going to let myself go out now.
04 44 59	CC	Gemini 4, Houston.
04 45 07	CC	Gemini 4, Houston.
04 45 12	CC	Gemini 4, Houston.
04 45 12	C	You know, Ed, this thing about the reference we were talking about looks like it was sure right.
04 45 17	P	Out here you don't even need one.
04 45 18	C	Yes.
04 45 20	CC	Gemini 4, Houston.
04 45 24	CC	Gemini 4, Houston.
04 45 25	C	I'm going out to PUSH-TO-TALK and see what the Flight Director has got to say.
04 45 33	C	Gus, this is Jim. Got any message for us?
04 45 35	CC	Gemini 4, get back in!
04 45 36	C	Okay.
04 45 41	P	One, what are we over now, Jim?
04 45 45	C	I don't know. We're coming over the West now, and they want you to come back in now.
04 45 47	P	Back in?
04 45 48	C	Back in.
04 45 50	CC	Roger, we've been trying to talk to you for awhile here.
04 45 50	P	Aw, Cape, let me just find a few pictures.
04 45 51	C	No, back in. Come on.
04 45 54	P	Coming in. Listen, you could almost not drag me in, but I'm coming.

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04 46 00	C	You still have 3 and a 1/2 more days to go, buddy.
04 46 02	P	I know it.
04 46 10	P	I'm coming.
04 46 14	C	Okay.
04 46 15	CC	You have about 4 minutes until Bermuda LOS.
04 46 20	CC	You have about 4 minutes till Bermuda LOS, Jim.
04 46 36	CC	Gemini 4, Houston CAP COM.
04 46 38	P	.....
04 46 39	C	Okay, okay. Don't wear yourself out now. Just come on in.
04 46 55	C	How are you doing there?
04 46 56	P	I'm doing great.
04 46 57	C	Good. ECS O_2 ..... is back in order.
04 46 59	P	All right.
04 47 00	C	Lots of pressure ... 47 pounds .....
04 47 05	P	Roger.
04 47 12	C	The spacecraft really looks like it's out-gassing because all the – whenever a little piece of dirt or something goes by it always heads for the door and goes right on out.
04 47 26	C	Okay, let's – oops, take it easy now. Take it easy.
04 47 30	P	..... I'm standing on top of it, right now.
04 47 32	C	Okay, ready on top. Come on in.
04 47 39	C	Boy, this load on our spacecraft is fantastic. You can put in a 2 deg/sec attitude change in nothing flat! Can't you get a hold there, Ed?
04 47 51	P	Yeah ..... now.
04 47 56	C	Okay.
04 47 56	P	It's no sweat. Actually, I'm trying to get a better picture.
04 47 58	C	No, come on in.
04 48 00	P	I'm trying to get a picture of the spacecraft now.
04 48 02	C	Ed, come on in here!
04 48 03	P	All right. Let me fold the camera and put the gun up.

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04 48 10	CC	Gemini 4, do you read Houston?
04 48 15	P	Ask them about no. 8.
04 48 18	C	What?
04 48 19	P	Ask them about no. 8
04 48 20	C	No. 8? Okay, how's no. 8?
04 48 26	C	Okay. Let's not lose that camera now. I don't quite have it. A little bit more, but easy, easy, easy.
04 48 32	P	Got it?
04 48 33	C	Okay, I've got it.
04 48 34	P	Okay, now I can enter ..... It's just like we said .....
04 48 40	C	Yes, we sort of talked about that. But we sort of talked about that but they didn't have any place for the camera. Come on, let's get back here before it gets dark.
04 48 46	P	Okay. This is the saddest moment of my life.
04 48 53	C	Well, you're going to find a sadder one when we have to come down from this whole thing.
04 49 00	P	I'm coming.
04 49 01	C	Okay.
04 49 04	P	.....
04 49 08	C	Come on now.
04 49 15	C	Okay.
04 49 17	CC	Gemini 4, Houston CAP COM.
04 49 20	C	Be sure you've got those hatch dogs fixed now.
04 49 22	P	Yes .....
04 49 26	CC	Gemini 4, Houston CAP COM.
04 49 32	CC	Gemini 4, Houston CAP COM.
04 49 44	CC	Gemini 4, Houston CAP COM.
04 49 47	C	I just took all that stuff down there and ..... Okay, I'm going to PUSH-TO-TALK now. I couldn't ..... interphone.
04 49 57	C	Okay, have any messages for us, Houston?
04 49 59	CC	Are you getting him back in?
04 50 04	C	He's standing in the seat now. His legs are down below the instrument panel.

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04 50 08	CC	Okay. Get him back in. You are going to have Bermuda LOS in about 20 seconds.
04 50 12	C	Yes, he's coming in. He's having some trouble getting back into the spacecraft it looks like.
04 50 18	CC	You got your cabin lights up bright in case you hit darkness?
04 50 21	C	I can't read you. Say again.
04 51 00	CC	Gemini 4, Houston CAP COM. Give me a status.
04 51 18	CC	Gemini 4, Houston CAP COM.
04 51 28	C	Go ahead, this is Gemini 4.
04 51 30	CC	Roger. Is he getting back in, Jim?
04 51 33	C	Listen, we are kind of busy. If you don't really have something for us, wait a couple of seconds.
04 51 41	CC	Roger.
04 52 46	CC	Gemini 4, we have about another minute. Could you give me your status before .....
04 53 01	CC	Gemini 4, Houston CAP COM.
04 53 22	CC	Gemini 4, Houston CAP COM.
04 53 30	CC	Gemini 4, Houston. Give me your status.
04 53 39	CC	Gemini 4, Houston CAP COM. Give me your status.
04 54 04	CC	Gemini 4, Houston CAP COM.
05 00 03	CC	Gemini 4, Houston CAP COM.
05 00 12	CC	Gemini 4, Houston CAP COM.
05 00 23	CC	Gemini 4, Houston CAP COM.
05 00 38	CC	Gemini 4, Gemini 4, Houston CAP COM. Over.
05 00 51	CC	Gemini 4, Houston CAP COM.
05 01 03	CC	Gemini 4, Houston CAP COM.
05 01 32	CC	Gemini 4, Gemini 4, this is 12 Echo on UHF.
05 01 45	CC	Gemini 4, this is Houston CAP COM. Over.
05 02 01	CC	Gemini 4, Gemini 4, this is Houston CAP COM. Over.
05 02 22	CC	Gemini 4, Houston CAP COM. Over.
05 02 36	CC	Gemini 4, Houston CAP COM.
05 02 48	CC	Gemini 4, Houston CAP COM. Over.
05 03 24	CC	Gemini 4, Houston CAP COM. Over.

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05 03 42	CC	Gemini 4, Gemini 4, Houston CAP COM. Over.
05 03 50	CC	Gemini 4, Houston CAP COM.
05 05 20	CC	Gemini 4, Houston CAP COM.
05 06 06	C	..... reads, Gemini 4.
05 06 10	CC	Gemini 4, this is Houston CAP COM. Go ahead.
05 06 35	CC	Gemini 4, Houston CAP COM. Go ahead.
05 06 43	CC	Gemini 4, Houston CAP COM.
05 06 50	CC	Gemini 4, Houston CAP COM. We read you once, go ahead.
05 07 10	CC	Gemini 4, Houston CAP COM. Over.
05 07 28	CC	Gemini 4, Houston CAP COM. Over.
05 07 39	CC	Gemini 4, Houston CAP COM. Give me your status.
05 07 47	CC	Gemini 4, Houston CAP COM. Give me your status.
05 07 57	CC	Jim, if you're trying to transmit, you're completely unreadable. I'm getting nothing but noise.
05 08 15	CC	Gemini 4, Houston CAP COM. Give me your status.
05 08 37	CC	Gemini 4, Houston CAP COM.
05 14 40	P	That was something.
05 14 47	P	That was the most natural feeling, Jim.
05 14 50	C	Yeah. I know it. You looked like you were in your mother's womb.
05 14 52	P	I felt like .....
05 14 55	C	That's the same position ..... that we're taking right now, you know this is quite comfortable.
05 14 59	P	Yes.
05 15 02	C	Now we got the UTD and all this other jazz.
05 15 07	P	And they're full.
05 15 21	P	Can you put that .....
05 15 21	C	.....
05 15 23	P	I'm just trying to get them all out, Jim.
05 15 23	C	Yes, that's okay.
05 15 26	C	But you had a bag of that stuff over here someplace .....

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05 15 28	P	Yes, I know it.
05 15 33	P	Did you get it right-side up?
05 15 33	C	Yeah, we're coming around slowly.
05 15 35	P	Okay.
05 15 41	P	I'll be going off COM here in a minute.
05 15 43	C	Okay. Now just take it easy when you pull that thing over because you'll really back .....
05 15 45	C	Easy, easy now.
05 15 49	C	Okay. Now wait a minute. It's hooked onto something down there.
05 15 55	C	It's hooked onto the junk. Okay, you got it.
05 15 59	C	Okay, what's this thing right here?
05 16 02	C	Gemini RCS scanner.
05 16 07	P	That's probably been knocked off during the exercise.
05 16 14	P	Okay. I'm ready to go off. I'll be off for just a couple of minutes.
05 17 04	C	Hello there.
05 17 07	P	I'm back on.
05 17 21	P	I'm going to leave this thing open 'til I cool off.
05 17 23	C	Let me help you.
05 17 26	C	Cabin reading .....
05 17 33	P	Yes.
05 17 35	P	Okay. Would you undo the tether to the arm rest?
05 17 45	C	Yes, you know that was a smart trick of ours, not going when the .....
05 17 50	P	Yes it was, Jim.
05 17 52	P	It might just have saved our cans.
05 17 59	P	It's not so bad down there.
05 18 02	C	Okay. We're coming right-side up again, I think.
05 18 07	P	Let's try to get hold of somebody and tell them.
05 18 09	C	I don't know what – who we can get a hold of. Let me check.
05 18 11	P	Who's knocking on the back there?
05 18 13	C	Ha! ha! ha! Here, let's put this away.

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05 18 16	P	All right. Hand me ..... all right.
05 18 19	C	Now let me hand you this stuff.
05 18 21	P	You know, I know my camera was turning. I could feel it.
05 18 26	C	I couldn't feel mine.
05 18 28	C	I didn't turn it on until we pressurized and then I couldn't feel it.
05 18 32	P	Okay. Would you look for the bag for that stuff.
05 18 35	C	Yes, I got it.
05 18 43	C	Lay it here.
05 18 47	C	You get the flight plan out and see who we can talk to.
05 19 02	C	5:15
05 19 09	C	Shoot! We don't talk to anybody until we get to Carnarvon at 5:35. Tananarive is .....
05 19 16	C	Houston, do you read Gemini 4?
05 19 21	C	Gemini 4, transmitting in the blind. We're back in. The cabin's resealed. We're all set and all safe.
05 19 38	C	We're going to do a delayed time tape playback over Carnarvon.
05 19 40	P	All right.
05 19 47	C	At about 5:33, just about 13 minutes .....
05 19 49	P	Right.
05 19 57	P	We are starting to get cleaned up, Jim.
05 19 59	C	Yes, we are. One thing, Ed. Just be slow, cautious and thorough.
05 20 04	P	Roger. I'm slow .....
05 20 06	C	I know you are. I'm amazed. I never thought I'd see the day you would be so slow.
05 20 21	P	You know that was just – we rehearsed this so many times.
05 20 24	C	Boy, it really paid off.
05 20 26	P	It's paid! Big dividends!
05 20 27	C	As a matter of fact, I think I'm going to tell Chris that on the radio.

[redacted]

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05 20 32	P	Don't alarm them.
05 20 33	C	No, I'm just going to tell them some of that training just paid off. We could get the hatch closed.
05 20 40	P	I tell you, the work I've done with those Crew Systems boys paid off.
05 20 45	P	I knew this equipment pretty well.
05 20 50	C	Yes. You knew how hard you could hit it without hurting it.
05 20 52	P	Yes.
05 20 55	C	Listen. I'd like to have you take it easy on your visor from now on, too.
05 20 57	P	Yes, I did that just after we got in orbit.
05 21 08	C	I tell you. The day side just isn't long enough for EVA. You know that?
05 21 11	P	No. You have to go like gangbusters.
05 21 15	C	Are we on RECORD now?
05 21 16	P	Yes.
05 21 17	C	Yes.
05 21 19	C	Note that recorder. You just don't have time.
05 21 33	C	That looks ..... on one ..... I'm going to go to.....
05 21 36	P	Okay.
05 21 37	C	How's our voltage doing?
05 21 40	P	I checked them just before I went out. They were good. Controls 27. S-2 is 28. S-1 is 28. The main is 23. We're in good shape.
05 21 56	P	I'm starting to cool off good, too.
05 21 58	C	Okay.
05 22 40	C	What are you going to do with your sleeves, Ed? You still want to take them off?
05 22 43	P	I don't know. I could take them off and stick them above my feet.
05 22 47	C	We'll worry about that later. That's not .....
05 22 49	P	Yes. Let's not get encumbered any more.
05 22 59	C	.....
05 23 30	P	Did you ever get your seat safety pin in?

[redacted]

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05 23 32	C	No. I never even tried. I haven't done anything. I'm still all latched up.
05 23 38	C	I've got my shoulder harness on, my lap belt on, my life vest on, my .....
05 23 53	P	I had it in a hole there. What hole's it in? The hole's ..... Like shooting in the dark. Ah! There's the hole.
05 24 14	P	You know, I looked down there. I thought I saw my D-ring sitting out. But I feel it now, it's in the housing.
05 24 19	C	No, it never came out.
05 24 21	P	I guess I was seeing some other strap. Man, I about ..... when I did that. I thought I'd ..... I didn't want to put my heel into it as I came in.
05 24 31	P	Wonder what that strap was down there? Because I feel my box is all closed now. You didn't close it did you?
05 24 38	C	No.
05 24 40	P	Guess it was some other – there were an awful lot of lanyards floating around.
05 24 57	P	You haven't gotten anybody, huh?
05 24 59	C	No. We got about another 8 minutes yet.
05 25 03	P	Coming up on Carnarvon?
05 25 04	C	Carnarvon? Yes.
05 25 21	P	I wonder if we ought to put our HF antenna out and see if that guy can call us?
05 25 24	C	No, let's wait until we get to Carnarvon.
05 25 33	C	Yes. Okay. Why don't we go ahead and do that? That might be a good idea.
05 25 35	P	Yes, I think it is. HF antenna's coming out.
05 25 43	C	I'll go to HF and give them a call.
05 25 54	P	Eureka! I got it in.
05 26 39	C	Gemini Net, Gemini Net. This is Gemini 4, Gemini 4 on HF. Does anyone read?
05 26 54	C	Gemini Net, Gemini Net. This is Gemini 4, Gemini 4 on HF. Does anyone read?
05 27 14	P	I think we are upside down, Jim.

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05 27 15	C	No we're not.
05 27 18	C	I think we're right side up, Ed. The ball shows it.
05 27 26	P	No, we're all right. I'm sorry.
05 27 27	C	Yes.
05 27 28	P	The mirror was covering up part of it.
05 27 33	C	Gemini Net, Gemini Net, Gemini 4 on HF. Does anyone read on HF?
05 27 41	C	You know this Hasselblad magazine that has the EVA on it?
05 27 46	P	Yes.
05 27 47	C	On the .....
05 27 48	P	Right.
05 27 49	C	.....

CARNARVON

05 32 04	CC	Gemini 4, Carnarvon CAP COM.
05 32 15	C	Hello Carnarvon, how do you read?
05 32 17	CC	Loud and clear. How me? Over.
05 32 21	CC	Gemini 4, Carnarvon. Read you loud and clear. How me. Over.
05 32 24	C	Hello Carnarvon, Gemini 4.
05 32 28	CC	Gemini 4, Gemini 4, Carnarvon. Read you loud and clear.
05 32 35	CC	Gemini 4, Carnarvon CAP COM.
05 32 41	C	Hello Carnarvon, hello Carnarvon, Gemini 4.
05 32 45	CC	Gemini 4, Carnarvon CAP COM.
05 32 47	C	Carnarvon, Gemini 4. How do you read me?
05 32 49	CC	I read you loud and clear. How me? Over.
05 32 51	C	Loud and clear. It's nice to have someone to talk to again.
05 32 54	CC	Roger. It's good to hear you. How are things going?

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05 32 56	C	Okay. We are back inside the spacecraft. We are repressurized to 5 psi. We are not, I say again, we are not going to depressurize the spacecraft again.
05 33 05	CC	Roger. Understand. How are you feeling?
05 33 07	C	Say again.
05 33 09	CC	How are you feeling?
05 33 11	C	Everybody's fine. Feeling great.
05 33 14	CC	Roger. Can you give me battery readouts please.
05 33 19	C	Battery readouts coming up.
05 33 21	CC	Roger.
05 33 27	C	Before I give the battery readout, do you want me to stay powered up, or do you want me to start powering down?
05 33 33	CC	Negative. I would like you to keep the power on your computer on until I update your time and load and then we will power you down.
05 33 39	C	Okay, I'm going to bring the computer on the line now. It's not on.
05 33 43	CC	That's affirmative. I was just going to ask you to do that.
05 33 48	CC	If your platform is off, you can leave it off.
05 33 50	P	.....A is 6 and 1/2, 1A is 24 volts.
05 33 55	CC	Say it again, please.
05 33 58	P	Roger. 1A and 1B are 6 and 1/2 volts, rather that's amps, and 24 volts.
05 34 06	CC	Go ahead.
05 34 09	C	1C is 7 amps and 24 volts.
05 34 11	CC	Roger.
05 34 14	C	2A is 7 1/2 and 24.
05 34 18	CC	Roger.
05 34 20	C	2B is 6 1/2 and 24.
05 34 22	CC	Roger.
05 34 24	C	2C is 6 1/2 and 24. And they look good. RGS A and B are both holding up fine.

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05 34 30	CC	Roger. Welre going to give you a GO for 6-4. I'll update a 4-4 load for you with maneuver and 6-4 without maneuver time.
05 34 39	C	Stand by one, please.
05 34 41	CC	Roger.
05 34 58	C	Carnarvon, while we are waiting for that we got all this equipment in the spacecraft right now and we are trying to get it stowed away in some reasonable pattern.
05 35 06	CC	Okay, I understand. I am going to update your command load first and then we will copy the times when you are ready.
05 35 10	P	We are ready right now.
05 35 12	CC	Okay. Transmitting a TR.
05 35 16	P	Got it.
05 35 17	CC	Roger. Got it in.
05 35 20	CC	And you got a valid 4-4 load without ..... maneuver load.
05 35 25	P	Understand we're good for 4-4.
05 35 27	CC	Roger. Okay. We are ready to copy your times.
05 35 30	P	Ready to go.
05 35 31	CC	4-4: 153. 3+18. 21 08 57. 3+00. 8+43.
05 36 00	P	Roger. Reading back area 4-4: 153. 3+18. 21 08 57. 3+00. 8+43.
05 36 09	CC	Affirmative. This will be done in the following manner. The burn, 110 aft, 43 forward.
05 36 22	P	Roger. 110 aft, 43 forward.
05 36 26	CC	Roger. You can power down your platform and computer at this time.
05 36 30	P	Roger. Clear to power down.
05 36 32	CC	Okay. You can turn your Quantity Read Switch to OFF.
05 36 37	P	Quantity's OFF.
05 36 38	CC	Roger.
05 36 46	C	We're going to power down our rate gyros and some of the other things at this time also.

[redacted]

05 36 51	CC	Roger. Do you want to copy down some 6-4 times?
05 36 53	P	Stand by. Ready – go ahead.
05 36 58	CC	6-4: 00.00. 01. 00 08 54. 8+12. 16+19. That's it.
05 37 28	P	Roger. Will you read back the Greenwich Mean Time and retro command on 6-4? I got the ΔV 00, ΔT 00. 8+12. 16+19. And I didn't copy on the retro time.
05 37 44	CC	Roger. That is 01 days 00 08 54.
05 37 52	P	Roger. Understand 00 08 54. Got it.
05 37 58	P	Roger.
05 38 00	CC	Okay, we've set your adapter C-band beacon to COMMAND.
05 38 03	C	Roger. We'll set it to COMMAND.
05 38 05	CC	Okay. I'm going to cut it off.
05 38 12	C	Carnarvon, this is Gemini 4. It looks like our booster is still out there flashing away.
05 38 16	CC	Roger. How far do you think it is?
05 38 19	C	I really can't tell. It looks like it is about 5 or 6 miles perpendicular to our Flight Plan. Maybe it's more than that. It could be as far out as 20 miles perpendicular to it.
05 38 32	CC	Roger. Is your Adapter C-band in COMMAND now?
05 38 34	C	Roger. It is.
05 38 40	CC	Okay, looks like I'm unable to turn it off.

(Missing CSQ Pass)

HAWAII

05 58 57	CC	Gemini 4, Hawaii CAP COM.
05 59 04	CC	Gemini 4, Hawaii CAP COM. Do you copy?
05 59 11	CC	Gemini 4, Hawaii CAP COM. Do you copy?
05 59 20	CC	Gemini 4, Hawaii CAP COM. Do you copy?
05 59 27	CC	Gemini 4 on UHF. Do you read?

[redacted]

[redacted]

00 59 29	P	While I was outside I noticed on Jim's window — he's got a coating on the outside of it. One time when I brushed up against it with either my shoulder or my arm it actually smeared right over on it, and it smeared the upper part of his windshield so that he couldn't see out. When I look out from this side, I can see that it is rather heavily coated with some type of material. When I was outside looking in, it looked like a — it looked like almost a greasy film on the outside of it. My window doesn't seem to have as much on it. When we have the sun on it.....
05 59 37	CC	Gemini 4, Hawaii CAP COM on UHF. Do you read?
06 00 04	CC	Gemini 4, Hawaii CAP COM. Do you copy?
06 00 08	C	This is Gemini 4. Go ahead.
06 00 08	CC	Roger. Would you position your real time T/M switch to the COMMAND position?
06 00 18	C	Say again.
06 00 20	CC	Would you position your real time T/M switch to the COMMAND position?
06 00 24	C	Roger. Our T/M switch is in REAL TIME and ACQ — is in COMMAND position.
06 00 29	CC	Roger. Understand in COMMAND position. Also would like to know what time you closed the hatch.
06 00 45	C	Stand by.
06 00 57	C	Stand by a moment. We'll try to figure it out for you.
06 01 00	C	Just a second, Ed.
06 01 04	C	This is Gemini.
06 02 14	C	This is Gemini 4. Who was calling me before?
06 02 17	CC	This is Hawaii, Gemini 4.
06 02 38	CC	Gemini 4, Hawaii CAP COM.
06 02 49	CC	Gemini 4, Hawaii CAP COM. Do you copy?
06 03 18	CC	Gemini 4, Hawaii CAP COM. If you copy, all systems on the ground look good.

[redacted]

06 07 14 P It looks like in our power-down [illegible] we're still pulling just a little less than 1 amps. We've got 10 amps. 1 and a little less than [illegible] amps. The tether – the location of the tether for the umbilical restraint on the outside hatch made it rather difficult to do any EVA work as far as free tether aerodynamics out in front of the spacecraft. Whenever I'd be operating out in that area, the tether would – when it would come to its end would start me back and the reaction would carry me back up towards the – over the spacecraft and back toward the adapter section. That's why I kept going out of sight during my maneuvering out there up above the windows, and then drifting back toward the back of the spacecraft. I continually had to keep pulling myself to get out in the front part of the spacecraft. I wasn't satisfied with the pictures that I was getting. It was rather difficult to keep any of the lanyards that I had on ..... I had the lanyard on the gun and the tether and umbilical that I was on, and several other miscellaneous type lanyards flailing around and it was difficult to keep them from in front of the camera. You'll notice that perhaps in the pictures that I'll be moving my arms rapidly. I kept trying to move them out of the way so that I could take a picture. I'd say they were in front of me probably about 50 or 60 percent of the time, and the other percent of the time I was not in as good a position as I would like to be. I think I probably took in the neighborhood of a dozen pictures. It does seem quite easy to operate, even just with the tether out there. I felt no tendency to bang into the spacecraft. I was able to approach the spacecraft just about from any attitude I came back in – and sometimes when I was coming .....

06 07 32 CC Gemini 4, Houston CAP COM. Over.

06 07 43 C Go ahead, this is Gemini 4.

06 07 45 CC Gemini 4, this is Houston CAP COM. We would like to get a Medical Data Pass, Type 1, on the Pilot at an elapsed time of 6 hours and 12 minutes. That'll be over Texas. That will be about 21 28 00 Z. He can set up his oral temperature, and we'll give you a call when we have a read-out on it.

[redacted]

GUAYMAS

06 08 46	CC	Gemini 4, Guaymas CAP COM.
06 08 52	CC	Gemini 4, Guaymas CAP COM.
06 09 00	CC	Gemini 4, Gemini 4, Guaymas CAP COM.
06 09 16	CC	Gemini 4, Guaymas CAP COM.
06 09 19	C	Go ahead, Guaymas – Gemini 4.
06 09 21	CC	Roger. The Cape would like to get a Medical Data Pass One on the Pilot. Recommend he inserts the oral temperature right now, so we can get a read-out over at the Cape.
06 09 32	C	Roger, he is inserting the oral temperature probe at this time.
06 09 37	CC	Roger. We are planning a dump over Texas. Request you assume a heads-up attitude.
06 09 42	C	Roger. We are assuming a heads-up attitude. Be advised we do not have the exerciser out; we will not be able to give you the Type 1.
06 09 54	CC	Roger. Understand.
06 10 03	CC	Gemini 4, Guaymas. Are you ready for your HF check?
06 10 07	C	Roger. We are ready for the HF check.
06 10 12	CC	Roger. Meet me on HF.
06 10 13	C	Roger.
06 10 17	CC	Gemini 4, Guaymas CAP COM on HF.
06 10 30	C	Guaymas, Gemini 4 on HF.
06 10 32	CC	Roger. I read you weak but clear. Give me a short count.
06 10 36	C	I read you garbled. 1,2,3,4,5. 5,4,3,2,1.
06 10 43	CC	Roger. Back on UHF.
06 10 45	C	Roger. How did you read me?
06 10 56	C	..... alerting someone, anyone, on HF to let them know that we got back in, but I got no response at all.
06 11 04	CC	Say again.

[redacted]

[redacted]

06 11 06	C	I say after we got back in the spacecraft I tried to call on HF to alert someone that we were back in, but I received no response.
06 11 16	CC	Roger. I'll pass that along.
06 11 41	CC	All systems are GO on the ground here.
06 11 44	C	Affirmative. GO.
06 12 16	CC	Gemini 4, Houston CAP COM. Over.
06 12 25	CC	Gemini 4, Houston CAP COM. Over.
06 12 31	CC	Gemini 4, Houston CAP COM. Over.
06 12 44	CC	Gemini 4, this is Houston CAP COM. Over.
06 13 03	CC	Gemini 4, Houston CAP COM. Over.
06 13 14	CC	Gemini 4, this is Houston CAP COM. If you read, we have the oral temperature. The Pilot can remove the probe.
06 13 20	C	Roger, will do.
06 13 22	CC	Okay, I'm reading you now. I have an onboard map update for you. The ascending node is 132° East. G.m.t. of the node is 21 39 00.
06 13 39	C	Roger. Say again the longitude of the ascending node.
06 13 43	CC	Roger. It's 132° East.
06 13 50	C	Roger. 132° East and 21 39 00.
06 13 55	CC	That's affirmative and would you put your ECS O_2 switch to OFF.
06 14 05	C	Which ECS O_2 switch to OFF?
06 14 10	CC	All right, that's the heater switch. Your waste valve Off. Your EVA bottle empty and ZIP GUN empty.
06 14 22	C	Say again Houston CAP COM. You're difficult to read.
06 14 25	CC	We want your waste valve off, and empty the EVA bottle.
06 14 37	C	Roger.
06 14 38	CC	Okay. If you don't have anything I'm going to turn you over to SIR JOHN for this Medical Data One, as much as we can get.

[redacted]

06 14 [illegible]	C	SIR JOHN, Gemini 4.
06 14 56	CC	Okay, we'll turn you over to SIR JOHN, Gemini 4.
06 15 00	S	Okay. Ed, we understand that you do not have the exerciser out, so would you go ahead and pump up the cuff, and we'll do without the exerciser. We'll get a single blood pressure.
06 15 13	P	Roger, Ed. I'll be pumping it up again.....
06 15 18	S	All right.
06 15 41	S	Ed, we don't see any cuff response yet.
06 15 46	P	I pumped it all the way up.
06 15 49	S	Does it feel firm to you?
06 15 51	P	Yes, quite firm. I'm .....
06 15 56	S	Okay, let her bleed, Ed.
06 15 59	P	Roger, and we'll pass it on to you now. I've had about 12 swallows of water and I think Jim probably had 10. Also, we haven't eaten anything yet and we're awfully hungry.
06 16 16	S	Real great. Listen Ed, we want to modify the Flight Plan and we would like to have the sleep period changed here and let you get some rest. We'd like to have you go for at least 4 hours right now and it's perfectly agreeable with Chris if we go ahead and have Jim sleep some of this period, too if he gets sleepy during that period. It's agreeable to Chris.
06 16 45	P	Understand you'd like me to go to sleep for a little while.
06 16 49	S	Roger. We'd like for you to go to sleep. For 4 hours, anyway.
06 16 54	P	I'm not too sleepy; however, I'll.....
06 16 59	S	Okay, let's give it a try. Could I confirm one thing with you too, Ed? When you were EVA, we got a transmission that there was no disorientation, and that was affirmative for the entire time. Is that correct?

06 17 14	P	There was no disorientation whatsoever. I felt that I could either look down at the ground – I felt perfectly at home looking down at it – and I could roll around on my back and look up and it was not disorienting me in any way. The spacecraft was my best reference. Any time I saw it I immediately had a good reference and, in fact at times near the end I was using my tether and actually walking up and down on the surface of the spacecraft, using it to hold me down, as somewhat of an anchor.
06 17 48	S	Oh, that sounds terrific. Wonderful.
06 17 52	P	There just isn't any disorientation whatsoever.
06 17 53	S	Let's go on that sleep period. If Jim has no arguments about that, that's the end of the transmission here then.
06 18 24	CC	This is Cape. Go ahead 4.
06 18 26	CC	Go ahead 4.
06 18 30	CC	Gemini 4, Houston CAP COM.
06 18 37	C	Houston CAP COM. Gemini 4.
06 18 39	CC	Go ahead, Gemini 4.
06 18 41	C	I would like a little flight information here.....
06 18 43	CC	Roger.
06 18 44	C	Just what the plan is now with the fuel remaining, or how are we going to handle the fuel?
06 18 52	CC	As best as I can tell you right now, you'll be able to accomplish practically all of the Flight Plan with the fuel that you have remaining at this time. We'll keep updating you in real time. Right now we want you to get some sleep. As far as your Apollo D-9 goes, it looks like you're going to be too far from the booster.
06 19 10	C	Okay, if Ed sleeps, and if I see it, I'll go ahead and use the sextant.
06 19 15	CC	Right. If you do see it, you might unstow the sextant, but I wouldn't recommend you unstow it before you see it because it looks like you are going to be plenty far from it.
06 19 22	C	Okay, now I saw it on the last orbit so maybe I'll see it on the next one.
06 19 28	CC	Gemini 4, from Cape.

06 19 30	C	Go ahead Cape.
06 19 31	CC	Looks like we won one after all.
06 19 33	C	Ha! Ha!
06 19 41	CC	Gemini 4, from Houston Flight.
06 19 45	C	Go ahead Houston Flight, Gemini 4.
06 19 47	CC	Give us about a day to find the true anomaly, Jim, to see whether we can really do any of these OAMS retros. For instance 6-4, we didn't have enough fuel so there wouldn't have been any argument.
06 19 58	C	Okay, I'll go ahead and proceed with the Flight Plan as we've got it now. Is that correct?
06 20 03	CC	Affirmative.
06 20 05	C	Thank you.
06 20 10	C	We had a couple of pretty exciting moments there, Chris.
06 20 12	CC	Right.
06 22 41	CC	Gemini 4.
06 22 53	CC	Gemini 4, Houston CAP COM. Over.
06 23 07	CC	Gemini 4, Houston CAP COM. Over.
06 23 18	CC	Gemini 4, Houston CAP COM. Over.
06 23 24	P	Go ahead, Gemini 4.
06 23 26	CC	We want to verify if you're off the long umbilical and back on your normal suit circuit.
06 23 32	P	That's affirmative. We've been off the long umbilical for some time. At that time we went off the umbilical onto the suit ECS circuit.
06 23 45	CC	Roger. Have a good nap.
06 23 47	P	Roger.
06 23 55	C	Houston CAP COM, this is Gemini 4.
06 24 04	C	Houston CAP COM, Gemini 4.
06 24 05	CC	Go ahead Gemini 4.
06 24 07	C	I never did understand what ECS O_2 switch you wanted me to turn off.
06 24 12	CC	Roger. It's the ECS O_2 heater switch. Heater switch.

[redacted]

[redacted]

06 24 17	C	How come you want that off?
06 24 23	CC	..... says we won't need it anymore. The pressure will sustain itself.
06 24 27	C	Okay, fine. Welre still up about 42 percent.
06 24 28	CC	Roger, you're reading 42 percent.
06 34 35	C	It's now 6+35 elapsed, and I'm powering down the spacecraft completely. We had turned off the platform and the computer earlier after checking with ground and completing our EVA. I'm powering down the rest of it at this time.
06 36 47	P	I'm turning Biomed Recorder no. 1 off at this time. This is a change from the Flight Plan due to the different sleeping arrangements.
06 37 27	P	Okay, Blackie.
0t 37 29	C	Ha! Ha! Ha! What are we going to do with all this stuff?
06 37 32	P	I don't know.
06 37 40	C	.....ES sensor.....?
06 37 44	P	Yep. Let's turn it off, too.
06 37 47	C	Let's turn it off.
06 37 49	P	The ES sensor is coming off at this time.
06 38 06	P	I think we ought to make a big effort to get a full meal at this time, Jim.
06 38 11	C	I think so. I'm about starved to death.
06 38 14	P	Ha! Ha! Bacon and egg bites.
06 38 18	C	Oh?
06 38 19	P	Yes. Ha! Ha! Ha!
06 38 23	C	For me, too?
06 38 24	P	Ha! Ha! Ha! Yes.
06 38 27	C	.....
06 38 29	P	Can you keep all that stuff on.....?
06 38 44	P	I swear, I get the feeling I'm standing on my head here.
06 38 50	C	Yes, me too.
06 38 54	P	Maybe it's because you're always touching the ceiling.

[redacted]

06 38 56	C	Yes.
06 39 05	P	Good boy! You putting some log data in?
06 39 07	C	Yes.
06 39 08	P	Back up that tape?
06 41 04	C	Continuing what I was debriefing about the booster, early in the flight. After we entered the darkness, at what I consider to be a distance of 1200 feet, I tried station-keeping with it, but the only thing I had to judge my distance from the booster at that time was the distance between the flashing lights. Occasionally they would – not occasionally, but continually, I would see one light, then two lights, and then one light, and then sometimes there'd be a long time before I'd see two lights – indicating that the booster was rotating all the time. I really didn't have too much of a clue as to which way it was going. Based on the distance between the lights, when I could see both of them, I felt that I was in a real good position with it until we got to about Carnarvon. At that time I seemed to be closing rather rapidly, although I couldn't really be sure of this. All the ΔV I'd added up to that time had been in the direction of the booster, or retrograde. Unfortunately, the darned booster would get in position such that if I were going to close on it, I would have to apply a posigrade to close, which then, in turn, caused me to once again depart from it after a period of time had gone by. Then with the 45 – 40 minutes of darkness, I really had a difficult time telling where I was. As we came out of the darkness, the booster was below me and pulling away from me quite rapidly. Ed, how far away below us do you think it was?
06 43 01	P	Oh, I don't know. I'd estimate it was probably out there a mile and a half or two.
06 43 06	C	Yes.
06 43 06	P	It's very difficult to estimate when it gets to be that far.
06 43 08	C	It certainly was. I sort of felt that it was probably between one and two miles, and I couldn't really tell how far out.

[redacted]

06 43 18 C Definitely below me. I'd been tracking it below me from about Carnarvon on. Up until about Carnarvon we had it below us, and then up to the horizon, and then down below us again. It almost looked like it was in a different orbit than I was. It had a different apogee and perigee than what I did. Anyway, I attempted to close with it at daylight as soon as I could tell where it was. As I said, at that time it was a mile or two out in front of me – down below me. So, the more I tried to close, the less I really gained on it. I was firing retrograde. I was using my top thrusters to fire in such a manner as to decrease my total velocity, and then firing ..... at the same time. I never really closed, and it continued to pull away from me. It became obvious to me that by the time we got to Hawaii that to close on the booster in time to do the EVA with the booster would probably take all the fuel we had onboard. In the ground rule we had agreed not to do this. So I checked with CAP COM and we decided to not go ahead with the booster portion of the mission. I don't know if I mentioned it, but when we separated from the booster, it seemed like our rates on the booster were low, on the order of a half a degree a second in pitch and yaw. I tried to damp these. I fired one impulse in each direction, and then I concentrated on coming off the booster. We came off, and we came off in the manner in which we generated some other rates. We came right-side-up, eventually, and turned around. Probably about a minute and a half or two minutes. It looked like the big problem was the time I took out to semi-aline the platform before we went into the dark side. We'd probably gotten right on top of the booster instantaneously. If I'd ignored the platform we would have been able to go ahead and complete it. On the other hand, I wanted to make sure we had a reasonably good alinement prior to getting to our 2-1 GO–NO GO point in case anything went wrong.

06 46 04 C What's that? Gum?

06 46 06 P Yes.

[redacted]

06 46 08	C	As the booster departed us, you could see the fuel spraying out of the roll nozzle. As the booster tumbled around, mostly in a plane that would be perpendicular to a line through the major axis of the spacecraft to the booster, you could see the long flowing tail that came out of it. I'm going to draw a short little picture of that on my flight plan. There was debris all over at spacecraft separation. We turned around and there were things all over the place. As a matter of fact, until we really got a good look at the booster, I really couldn't tell what was what. Fairings came off right at fairing jet with no problem. The horizon scanner fairings looked like they came off intact but I couldn't really tell because it disappeared out of sight so fast. I didn't see the nose fairing come off at all.
06 47 36	C	I never did get an accelerometer bias to check on the platform. I was thrusting most of the time there, and unable to really settle the thing down for any length of time. We skipped a couple tape dumps I guess, because of the peculiar attitude that we were in. I could not contact Carnarvon very well on the first pass. It's a shame we didn't have a camera out right when we separated because .....
06 48 33	P	Boy! That was beautiful.
06 48 40	C	Nice. What? g?
06 48 42	P	No. That first view of that booster.
06 48 43	C	Oh yes. That was really nice, wasn't it?
06 48 45	P	That was beautiful.
06 48 46	C	That was really nice all right.
06 48 50	C	Just the way it should have been.
06 48 51	P	Just exactly!
06 48 52	C	How far out do you think we were when we first saw it? I think we must have been at least 500 feet out when we first got around.
06 48 57	P	Oh, we were closer than that.
06 48 58	C	Do you think so?
06 48 59	P	Oh yes. I'd say we were in the neighborhood of.....
06 49 02	C	Remember, it's only .....

[redacted]

06 49 04	C	It's 130 feet long – the whole thing, I mean. Just as a reference, from the pad to our spacecraft was only about 130 feet long.
06 49 13	P	Yes.
06 49 14	C	Okay.
06 49 18	P	I'd estimate we were out about a little over 200 feet.
06 49 20	C	Think so?
06 49 21	P	Yes.
06 49 22	C	Okay, I would estimate .....
06 49 22	P	Boy, it was sitting right out there!
06 49 23	C	..... between five and six hundred feet, but certainly close enough where you could see it in all its clarity.
06 49 28	P	Going away and the tumbling was starting.
06 49 30	C	Right. It didn't take long for that tumbling to get going.
06 49 35	P	Interesting thing, though. The tumbling, really, as I could see, never appreciably picked up. It stayed there. It started out.....
06 49 42	C	You know what it looked like to me?
06 49 44	P	What?
06 49 45	C	It looked like it was tumbling in an oscillatory manner. It would tumble for a while and then it looked like, as it burped or the fuel came out or something, it would change its orientation and pull over in another way.
06 49 56	P	Yes, but it never seemed to go ..... I timed them ..... looked like .....
06 49 59	C	The rates..... Yes, the total rate never really seemed to pick up good in whatever it was. What was it? Eight seconds/rev?
06 50 05	P	Eight seconds/revolution. I timed them.
06 50 06	C	Okay. Let me write that down so we don't forget it.
06 50 10	C	Starting over the United States, actually Ed started unstowing things just as soon as we got into orbit. I think that we could unstow without jeopardizing the possibility of a safe 2-1 reentry.

06 51 01	P	What's that down there below us? Over there.
06 51 06	C	Looks like a city or something.
06 51 11	P	Are we upside-down?
06 51 13	C	I think we're pointing right down at the ground.
06 51 18	C	Ed started on unstowing stuff and as soon as we got to the position where it became no longer feasable to fool with the booster, I started full-time helping him – at least holding the things and stowin them away and trying to keep them from disappearing. The faster we worked the farther behind we got. Not because we weren't putting things the way they were supposed to, it just took a lot longer than we had anticipated. It really wasn't much easier at zero g than it was in the simulator, if as easy. So we worked all the way around. By the time we got to Carnarvon, I had made up my mind that we couldn't make it, but I thought we'd forge on a little longer. By the time we got to – or just before we even left Carnarvon it was clear to me that we could not make the depressurization. I called for a slip to the next orbit. We then..... caught our breath for about 20 minutes and tried to sort out the junk I had laying around in the cockpit. Then I got the checklist out and we went through the checklist again in detail to make sure that we hadn't skipped anything in the rush. Started the extravehicular – got the GO over Carnarvon. We were all set to go and we were standing by for the GO to start depressurizing. We got it. Went through the depressurization cycle. As we left Carnarvon, we were cleared for the full EVA. We got to Canton or Hawaii, and at that time were given – I believe it was Canton or Hawaii that gave us the GO to actually exit the spacecraft and start the extravehicular maneuvers. We accomplished this as indicated on our tape recorder that we recorded before and on the VOX position. We went ahead and Ed got out and we started to take pictures as we – how we would.....I initially held the spacecraft fixed for him. Then as he got out and seemed to be floating around in such a manner that I couldn't track him – initially, we decided that it was better to let the thing drift. Is that right?
06 54 23	P	That's right.

[redacted]

06 54 25	C	He was having difficulty maintaining his orientation, and it looked to me from then on he oriented off the spacecraft without regard to which direction it was pointing. He could actually impart quite high rates to it, as high as 2° per second. I intended to keep them below that level. As he got back into the spacecraft, we had a considerable amount of difficulty with the hatch. First we lifted the ratchet portion of the hatch to engage. After we got that engaged, we couldn't get the hatch down closed far enough. Actually, we started pulling down on the locking handles to get the dogs out. So, we had a rather exciting time and I think it was on tape, wasn't it Ed? I had the tape recorder on, I believe.
06 55 24	P	The tape recorder was on, but the red light lit there sometime. I don't know.
06 55 26	C	Okay. So it may be on tape and it may not. It went on for – I think we were 44 minutes after we started EVA. I was looking at my event timer which I had started when Ed exited the spacecraft. At 44 minutes we still didn't have the hatch closed. We were trying to take things calm, cool, and collected so we didn't get things all screwed up. And finally, by my pulling as hard as I could to get the hatch closing device, and Ed pulling down as best as he could, we were able to force him down into the seat and get the hatch closed fully. Ed seemed to be up much higher today than he had been in any of our zero-g EVA in the airplane.
06 56 13	P	Jim. I don't think it was the.....
06 56 17	C	Go ahead. Say what you said.
06 56 20	P	Yes. I don't believe we were actually having difficulty with the head clearance. I felt like I had plenty of head clearance and I could actually ..... down and manipulate the dogs. We just seemed to have a little more effort in closing than we had ever experienced before and.....
06 56 40	C	It was difficult to swing shut because of all the washers that we have in the pyro lines.

[redacted]

06 56 50 P Right. I was having to actually manipulate the main dump on the hatch each time that I stroked it, so that I wasn't able to pull as hard as I usually had been able to. So we had to coordinate ourselves and when I would stroke down on it, Jim would – I would instruct him to pull hard at that time and I know he was. In that manner we were able to get it started. Once these dogs started dogging down I had no trouble with the gain anymore, but I had to actually engage the gain as we had been instructed on the first several strokes to get it started down.

06 57 30 C One thing that I don't know if we got on tape before, but both Ed and I mentioned that we were quite thankful for all the training that we'd done in the altitude chamber, in the zero-g airplane, and the crew procedures trainer there at Houston.

06 57 43 P You're not kidding! I'll second that. The things that occurred were not things that we hadn't done before and things that we hadn't worked out procedures for before. The things that we did, I think, paid very heavy dividends today. I was very thankful for all the training that we had and the work the people had done with us.

06 58 01 C Yes. I was thankful that we didn't have to make a reentry with the hatch open.

06 58 06 P And another thing, I was glad Jim had been working with the dumbells a little bit to build up those muscles.

07 00 46 P On the books, I think we want to be sure we put a little more care into the kind of rings we use. We've had difficulty in opening two or three different times now, and also pages are tearing out so that they are not staying in the book. We ought to look into some kind of reinforcement for the holes, where the rings attach. On the water gun, the little teat that sticks out the end of it to allow the water to flow out sticks in the OUT position, just like it did on the simulator, and allows water to flow after you take the trigger off. You have to, actually, from time to time reseat it back up in there to keep the water from flowing out of the capsule when you pull the gun out of the food package. Another thing, on the drinking hose, it's very easy to turn the hose in such an angle when you're drinking from it to keep the water from flowing through the hose. Actually, you crimp the hose right at the end, right where the rubber attaches to the drinking nozzle gun.

CAPTAL JEWELRY ITEMS

07 22 [illegible]	CC	Gemini [illegible], CSC.
[illegible]	CC	Gemini [illegible], CSC. Turn your computer [illegible] for [illegible] update.
07 22 [illegible]	CC	Gemini, CSC. If you monitor, turn your computer [illegible] for [illegible] update.
07 23 0[illegible]	C	Roger. Gemini [illegible] here. Read you loud and clear, CSC. Want my computer on?
07 23 0[illegible]	CC	.....
07 23 19	C	CSC, Gemini [illegible]. How do you read?
07 23 21	CC	Roger. Read you loud and clear. Turn computer on.
07 23 2[illegible]	C	I've got my computer on. I don't have the running light on yet.
07 23 27	CC	Roger.
07 23 29	C	Come right-side up for this load?
07 23 32	CC	Say again.
07 23 33	C	I say I'm upside down. Should I come right-side up here?
07 23 41	CC	Roger. You should be heads-up. We've got tape dump, also.
07 23 45	C	Okay.
07 23 47	CC	And also get your Quantity Read Switch for about 15 seconds.
07 24 03	CC	What is your status for 18-1?
07 24 06	C	18-1 is fine. We'ge got both RCS rings, two left secondary O_2 bottles.
07 24 14	CC	Roger. Are you going to Main batteries?
07 24 17	C	Roger. Stand by one.
07 24 3[illegible]	CC	We have you GO on the ground here. Have you unstowed your bungee cord?
07 24 39	C	We just got it out now. We just tried to get all of our stuff unstowed, and we're not really prepared to do an Aero-Med Pass if we have to.
07 24 45	C	.....we're getting squared away here. We're not really prepared to do an Aero-Med Pass unless we have to.

[redacted]

[illegible]	CC	Okay. And we did not get a valid oral temp AOS anyway, so will permit your Aero-Med Pass.
[illegible]	C	We've got a major housekeeping problem here with all this equipment onboard that we'd expected to get rid of.
07 24 02	CC	Roger. Can you give us a blood pressure?
07 24 03	P	The main batteries are reading 9 amps and 23 volts.
07 24 09	C	All the main batteries are reading 9 amps and 23 volts, and the Pilot still has his blood pressure bulb in. Do you want one from him?
07 24 16	CC	Negative, just the Command Pilot.
07 24 18	C	Okay. Just a second and I'll give you one.
07 24 27	P	Do you want our adapter readings? Gemini 4.
07 24 30	CC	Roger, go ahead.
07 24 33	P	Roger. 1A is 3-24, 1D is 3 1/2 and 24, 1C is 3 1/2 and 24 1/2; 2A is 2 1/2 and 25, 2D is 2 1/2 and 25, and 2C is 2 1/2 and 25.
07 24 56	CC	Roger. I copied them all.
07 25 01	CC	Roger. We got a good blood pressure, also.
07 25 07	CC	I've updated your TR clock with the 18-1 time; it's in and valid.
07 25 11	C	Stand by one. I didn't get my computer on.
07 25 18	C	We have to get the .....
07 25 27	CC	Turn off the .....
07 25 37	C	Roger, CSQ. This is Gemini 4. Give me another update. I didn't have my computer all the way on.
07 25 51	CC	Have you got a running light now?
07 25 57	C	Running light now. Roger.
07 25 58	CC	Roger. Transmitting Gemini load.
07 26 06	C	Okay. We didn't get the DCS light. We're still not right-side up yet.
07 27 13	CC	Roger. I got indications when I transmitted the 18-1 TR time that it did not go in valid.
07 27 19	C	Okay. We didn't get the DCS light.
07 27 23	CC	Okay. Then you did not get the 6-4 load. The 18-1 GMTRC if you are prepared to copy.

[redacted]

[redacted]

07 [illegible]	C	Stand by.
07 [illegible]	CC	Gemini, CSQ. Turn your Quantity [illegible] Switch to OFF.
07 28 01	C	It's off.
07 28 06	CC	Roger.
07 28 09	CC	..... 17 56 03. This is without OAMS. 7+47, 15+36.
07 28 24	P	Your first part was blocked cut. Start over, please.
07 28 27	CC	Roger. 18-1 without OAMS: 17 56 03. 7+47. 15+36.
07 28 41	P	You were blocked cut part way. Would you try again, please?
07 28 45	CC	Roger. GMTRC 17 56 03. 7+47. 15+36.
07 29 01	C	CSQ, Gemini 4. You're cutting out in the middle of your transmissions. We're receiving the first numbers and the last numbers, but not the middle.
07 29 09	CC	Roger. You got the GMTRC then. We'll get this up to you later.

HAWAII

07 33 31	CC	Gemini 4, Hawaii CAP COM. Standing by. We have you GO on the ground. Do you copy, Gemini 4?
07 34 20	CC	Gemini 4, Hawaii CAP COM.
07 34 22	C	Hawaii, Gemini 4.
07 34 24	CC	Roger. We have your T/M solid. Hawaii standing by.
07 34 28	C	For your information we're perfectly upside-down. I guess maybe, you pick up T/M even when I'm not right-side up.
07 34 33	CC	Roger. I just sent your T/M command, real time on, and got it in. We're receiving your T/M very well.
07 34 42	C	..... CSQ, back on the computer. We never got a DCS light anyway.
07 34 50	CC	Roger.
07 34 52	C	We got a DCS light the first time, but I didn't have the IGS power on. And the second time, we didn't get the DCS light.
07 35 13	CC	You look very good on the ground, Gemini 4.

[redacted]

07 [illegible] 17	C	Say again.
07 [illegible] 18	CC	You look very good on the ground.
07 [illegible] 21	C	We look good on the ground?
07 [illegible] 22	CC	Affirmative. You look good on the ground.
07 [illegible] 24	C	Okay, we've got everything going fine for us up here, except for all this junk we have inside.
07 [illegible] 28	CC	Roger, I understand.
07 [illegible] 31	C	Be advised Ed is going to start trying to go to sleep at this time.
07 [illegible] 34	CC	Roger.
07 35 40	P	Bacon and egg bites, toast and orange juice, and I'm about to go to sleep.
07 35 45	CC	Roger from Hawaii.
07 36 03	CC	Gemini 4, Hawaii.
07 36 08	CC	Gemini 4, Hawaii.
07 36 30	C	This is Gemini 4. Be advised that I just got a DCS update.
07 36 35	CC	Roger. I just sent a T_X.
		(Cal remotes)
07 41 54	CC	Gemini 4, Houston CAP COM. Over.
07 41 58	CC	Gemini 4, I'm reading you weak. I have a new 6-4 without OAMS update for you. It's 01 days, 00 09 30, 8+18. 16+10. Over.
07 42 25	C	.....
07 42 36	CC	16+10.
07 42 53	CC	Gemini 4, this is Houston. Did you copy that 16+10?
07 43 07	CC	Gemini 4, this is Houston. I say again, reverse bank to 16+10.
07 43 48	CC	Gemini 4, this is Houston CAP COM. Over.
		(GYM remoted)
07 44 09	C	Hello Houston, Gemini 4. Do you read?
07 44 12	CC	Gemini 4, this is Houston CAP COM. Loud and clear. How me?

[redacted]

07 ... 1[illegible]	C	Loud and clear now. I understand that the 6-... update is CO 09 30, 8+18. And I did not get the last quantity.
07 ... 27	CC	16+10.
07 ... 39	CC	Gemini 4, this is Houston. I say it is 16+10. Did you copy?
07 ... 04	C	Hello, Houston, Gemini 4. Do you read?
07 ... 06	CC	Roger. Loud and clear. You seem to be cutting in and out. What UHF are you on?
		(Texas remoted)
07 45 45	CC	Gemini 4, this is Houston CAP COM. Over.
07 45 53	C	Hello Houston, Hello Houston, Gemini 4.
07 45 55	CC	Gemini 4, this is Houston. You're very intermittent. If you're reading, we are going to update your 6-4 over Texas. Leave your computer on. After Texas LOS, power down the computer. Did you copy?
07 46 11	C	Hello Houston, Hello Houston, Gemini 4.
07 46 15	CC	Gemini 4, I'm reading you loud and clear. How me?
07 46 35	CC	Gemini 4, Houston CAP COM. How do you read? Over.
07 46 47	C	Hello Houston, Hello Houston, Gemini 4.
07 47 03	CC	Gemini 4, this is Houston CAP COM. Do you read? Over.
07 47 15	C	Roger, Houston CAP COM. Gemini 4, I read you loud and clear. Go ahead.
07 47 18	CC	Roger. Your RETRB is 16+10. Your other readbacks were correct.
07 47 30	CC	Do you copy?
07 47 36	C	Houston, Gemini 4. Do you read me?
07 47 39	CC	Roger. Read loud and clear. If you hear me, go HF. Go HF.
07 48 02	CC	Gemini 4, Houston CAP COM on HF. Do you read? Over.
07 48 17	CC	Gemini 4, Houston CAP COM. Do you read? Over.
07 48 21	C	Roger, Houston.
07 48 24	CC	Roger. You are weak. If you are reading me, your RETRB is 16+10. Over.
07 48 31	C	16+10. Roger.

[redacted]

07 48 33	CC	Roger. Your other readbacks were correct. You have a valid 6-4 load in your computer.
07 48 40	C	Roger. I have a valid 6-4 load in my computer. Thank you.
07 48 43	CC	That's affirmative. You can power down your computer.
07 48 47	C	Roger. When is the next time you want me to power it up?
07 48 51	CC	It'll be quite a while. We have a long dry spell here. And we'll try to leave you alone and let you rest. You have a D-8 update. D-8 will be performed. Nominal time is 02+30 G.m.t.
07 49 07	C	Roger. I'm afraid that Ed will be asleep by that time, but give me that time again.
07 49 13	CC	Greenwich Mean Time 00. Excuse me, that's 02 30 00.
04 49 21	C	Roger. 02:30.
07 49 24	CC	Roger. And if it is at all possible, we'd like to have you put the EVA glove in a plastic bag and seal it as best as you can.
07 49 34	C	You want me to seal something up? I'm going to seal up the film that we just took. Is that what you want?
07 49 40	CC	Put the EVA glove in a plastic bag and stow it away if possible.
07 49 46	C	.....
07 49 50	CC	We would like to analyze what came off the window. .
07 49 55	C	You want to analyze what came off the window.
07 50 05	C	This is Gemini 4. I'm going to go off HF. Okay?
07 50 11	CC	Gemini 4, this is Houston. We have nothing else. You can power down your computer. I'll be standing by.
07 50 17	C	Roger, going off HF ..... UHF again.
07 50 20	CC	Roger. Going back to UHF.

COASTAL SENTRY QUEBEC

08 57 56	CC	Gemini, CSQ. Be advised to stand by to receive a Flight Plan update over RKV this revolution.

[redacted]

[redacted]

08 [illegible] 04	C	Roger, we'll stand by to receive a flight plan update over RKV.
08 [illegible] 08	CC	Roger. Have you got your computer on?
08 08 12	C	Roger. I just got the ICS power on and the computers on.
08 08 16	CC	Roger.
08 08 24	CC	Roger. You have a Gemini load for area 18-1.
08 08 31	C	Roger. Understand I have a load for 18-1.
08 08 33	CC	Affirmative. Are you prepared to copy your 18-1 back-up flight quantities?
08 08 43	C	Stand by. Okay, go ahead.
08 08 47	CC	GMTRC 17 56 03. 7+47. 15+36.
08 59 05	C	Roger. Understand 18-1 load is 17 56 03. 7+47. 15+36.
08 59 18	CC	Roger, and I also have an area 7-DELTA for you when you are ready to copy.
08 59 22	C	Go ahead.
08 59 23	CC	Roger. 104. 2+15. GMTRC 01 days, 00 hours, 52 minutes, 14 seconds. 13+48. And there is no RETRB available at this time.
08 59 47	C	Roger. You are going to have to say that all over. You were breaking up badly.
08 59 51	CC	Roger. Area 7-DELTA: 104. 2+15. 01 days 00 hours 52 minutes 14 seconds. RET 400 K: 13+48. Do you copy?
09 00 14	C	Roger, CSQ. You broke up on that, but you came through with a 104. 2+15..... 400 52 14..... +15.
09 00 31	CC	Negative. RET 400 K is 13+48. Do you copy?
09 00 39	C	We copy.
09 00 52	CC	Did you copy the RET 400 K?
09 00 57	C	CSQ, I'm only getting about every fifth transmission of yours.
09 00 59	CC	Roger, I say again RET 400 K: 13+48. Do you copy?
09 01 24	CC	Okay, turn your computer off. Turn your computer off.
09 01 29	C	Roger. All I got was "computer off," and I'm turning my computer off.

[redacted]

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09 01 33	CC	Roger. PET 400 K for 7-DELTA is 13+48.
09 01 40	CC	I say again PET 400 K: 13+48. The Area 7-DELTA.
09 02 11	CC	Gemini 4, CSQ.
09 02 21	CC	Gemini 4, CSQ.
09 25 24	C	Weather photography ..... at about 24 – 00:41 on the first day. A whole series of ..... clouds in a very peculiar pattern down on the ground. The light wasn't very good so I used an f stop of f/11.....
09 25 48	P	We're just going into the twilight.

ROSE KNOT VICTOR

09 29 47	CC	Gemini 4, Gemini 4, this is RKV CAP COM.
09 29 56	CC	Gemini 4, Gemini 4, this is RKV CAP COM on UHF.
09 30 09	CC	Gemini 4, Gemini 4, this is RKV CAP COM on UHF.
09 30 15	C	Gemini 4, read you loud and clear. Go ahead.
09 30 20	CC	Gemini 4, this is RKV CAP COM on HF. Do you read?
09 30 28	C	.....
09 30 29	CC	Roger. Are you on HF?
09 31 39	CC	RKV Medical Data Pass no. 1 at G.m.t. 02 17 43 for the Pilot. Request that the Pilot have the temperature probe in his mouth 3 minutes before acquisition. Also have the voice update for recovery area 9-3 through 13-2 and 8-Charlie through 12-BRAVO. D-8 experiment at G.m.t. 02 30 59. Command Pilot sleeping period begins at the same time. MSC Experiment -2 and -3 at 03 00 00. Do you copy?
09 33 03	CC	Gemini 4, RKV CAP COM. Did you copy?
09 33 12	CC	Gemini 4, RKV CAP COM. Did you copy?
09 33 17	C	Negative RKV, Gemini 4. All I got was my ascending node. I missed all the other information.
09 33 25	C	Do you read me?
09 33 26	CC	Roger, loud and clear, Gemini 4. Read you loud and clear.
09 33 31	C	Okay. What were you trying to give me that time?

[redacted]

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09 33 34	CC	Roger, I have a Command Pilot eating period starting at 00 1[illegible] 00 until 01 00 00. Do you copy—
09 33 41	C	You have a Command Pilot eating period from 00:1[illegible] to 01:00. Is that correct?
09 33 58	CC	Affirmative. I have an RKV Medical Data Pass no. 1 on the Pilot at 02 17 43. Do you copy?
09 34 19	C	RKV Medical Data Pass no. 1 on the Pilot at 02 17 43.
09 34 26	CC	Roger. D-8 experiment at 02 30 59.
09 34 38	C	Roger. What's the name for that 02 30 59?
09 34 42	CC	DELTA-8 experiment.
09 34 46	C	Roger. Be advised that the Pilot went to sleep or tried to go to sleep a few hours ago. He'll be getting up about that time.
09 34 56	CC	Roger.
09 34 58	CC	The Command Pilot sleeping period begins at that time.
09 35 03	C	At 02 30 59?
09 35 05	CC	Affirmative. .....
09 35 22	C	RKV, Gemini 4. .....
09 35 31	CC	Roger. MSC No. 2 and 3 experiments, OFF at 03:00 hours.
09 35 42	C	Roger. MSC-2 and -3, OFF at 03:00.
09 35 46	CC	Roger. You will also receive a voice update for 9 through 13 recovery areas during the RKV pass at 02:17.
09 36 06	C	RKV, say all after MSC-2 and -3.
09 36 10	CC	Roger. Voice update recovery areas during RKV pass 02:17.
09 36 21	C	Okay..... RKV pass 02:17.
09 36 28	CC	Affirmative. Affirmative.

HAWAII

10 40 05	CC	Gemini 4, Hawaii CAP COM.
10 40 09	CC	Gemini 4, Hawaii CAP COM. Do you copy?

[redacted]

[redacted]

10 40 1[illegible]	CC	Gemini 4, Hawaii CAP COM. Do you copy?
10 40 21	C	Yes, Hawaii, Gemini 4. Reading you loud and clear.
10 40 24	CC	Roger. During your pass we would like to perform a UHF check. I would like to stress – use minimum fuel, minimum fuel. Place your UHF Antenna Select Switch to REENTRY. Give me a short count.
10 40 45	C	Roger. I'll give you a short count here on the adapter. 1,2,3,4,5 – Now I am going to Antenna Select, REENTRY.
10 40 54	CC	Give me a short count on REENTRY.
10 40 57	C	Roger, I'm on REENTRY now. 1,2,3,4,5 – 5,4,3,2,1. Are you reading?
10 41 02	CC	Roger, reading you loud and clear. Now I would like for you to roll heads-up. Suggest using Pulse. Use minimum fuel. While you are rolling, perform another voice check on REENTRY.
10 41 20	C	Roger, stand by. I've got to get my ac power ON.
10 41 27	CC	Roger. Also would like for you to build up cabin pressure to 5.4 psi using O_2 High Rate.
10 41 38	C	Roger, you want us to build cabin up to 5.4 using O_2 High Rate?
10 41 43	CC	Affirm.
10 41 44	C	About 5.3. I'm going to O_2 High Rate now.
10 42 09	CC	Gemini 4, Hawaii CAP COM.
10 42 11	C	Go ahead Hawaii CAP.
10 42 12	CC	Can you position your Real Time T/M Switch to READ-TIME and ACQ-AID?
10 42 18	C	Roger. We're REAL-TIME and ACQ-AID. It looks like I'm pointed just about straight up at the sun right now. I'll try to roll around so I can see the horizon. I'll talk as I'm doing this. How do you read me?
10 42 42	CC	Roger. Reading you loud and clear. When you get heads-up, place your UHF Antenna Switch to ADAPTER and give me a short count.
10 42 53	C	Roger, I will do.
10 43 17	C	I have my cabin up to 5.4 at this time.

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[redacted]

10 43 20	CC	Roger, I understand that you are up to [illegible].
10 43 23	C	Roger. It just vented and I'm back down to about 5.5.
10 43 27	CC	Roger, understand. Go off of High Rate.
10 43 30	C	Roger, I'm off of High Rate already.
10 43 45	C	Okay. I'm just about upside-down now. About 120° bank I'll start rolling around.
10 43 53	CC	Roger, give me a count as you roll.
10 43 55	C	Roger. 1,2,3,4,5 – 5,4,3,2,1.
10 43 59	CC	Roger, read you loud and clear. Use minimum fuel, Gemini 4.
10 44 15	C	Were you supposed to get some retrofire times from RKV before?
10 44 20	CC	Roger, I will pass up 8-C to you when we finish the Com Check.
10 44 25	C	Again, please.
10 44 26	CC	I will relay Area 8-C to you when we finish the Com Check.
10 44 32	CC	Roger.
10 44 52	C	I'm in about 90° right now and I'm starting to come out.
10 44 56	CC	Roger. Still reading you loud and clear.
10 44 59	C	Okay, I'm reading you loud and clear, too. I'm reading you much better than I've read anyone else in a long time.
10 45 03	CC	Roger.
10 45 05	C	Nice to talk to somebody, again.
10 45 07	CC	Yes, you broke up on a couple of passes over.
10 45 10	C	Ed was sleeping. I didn't have anyone on the ground to talk to and it was kind of quiet. I should say Ed was trying to sleep.
10 45 21	CC	Roger. Has he been sleeping?
10 45 24	C	Speak for yourself, Edward. Okay, I'm coming up to level flight at this time. 1,2,3,4,5 – 5,4,3,2,1.
10 45 36	CC	Roger. We would like for you to switch to ADAPTER and give us a short count.

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10 45 42	C	Roger, I'm on ADAPTER. 1,2,3,4,5 – 5,4,3,2,1. How do you read me?
10 45 [illegible]	CC	I read you a little broken up but readable.
10 45 51	C	Okay, I'm reading you loud and clear also.
10 45 54	CC	Roger. I think this is about the best we've had – right?
10 46 16	CC	Gemini 4, Hawaii CAP COM. Be advised to switch back to REENTRY. Did you copy, Gemini 4?
10 46 23	C	Roger. We're on REENTRY now.
10 46 25	CC	Roger, understand
10 46 38	CC	Gemini 4, Hawaii CAP COM. Will you position your REAL-TIME ACQ-AID to COMMAND.
10 46 43	C	It is on COMMAND.
10 46 45	CC	Roger. Roger. Now are you ready to copy your CLA 8-C?
10 46 57	C	Roger, we are.
10 47 01	CC	166, 3+35. 01 02 06 51. 11+18. Did you copy, Gemini 4?
10 47 25	P	Roger. Reading back 8-C. ΔV 166. 3+35. 01 02 06 51. Say the last two.
10 47 42	CC	11+18. RET 400 K. Did you copy?
10 47 49	P	Hawaii, Gemini 4. Say the last two again, please.
10 47 52	CC	Roger. GMTRC 01 02 06 51. RET 400 K. 11+18. Did you copy?
10 48 13	CC	Gemini 4, Hawaii CAP COM.

ROSE KNOT VICTOR

11 01 48	CC	Gemini 4, Gemini 4, this is RKV CAP COM.
11 02 06	CC	Gemini 4, Cemini 4, this is RKV CAP COM.
11 02 10	C	RKV CAP COM, this is Gemini 4. How do you read?
11 02 15	CC	Roger. I read you loud and clear. How me?
11 02 19	C	Loud and clear.
11 02 20	CC	Roger. Be advised that the oral temp is complete.
11 02 27	C	Roger, the oral temp is complete.

11 02 29	CC	Roger. We'd like a blood pressure on the Pilot for an Aero-Med Type 1 Pass.
11 02 39	C	Roger. He's getting ready to do that now.
11 02 42	CC	Roger.
11 02 45	P	We have another sighting on the booster. It's right on the horizon at this time. We're going approximately blunt-end-forward.
11 03 03	S	Gemini 4, RKV Surgeon. The cuff is full-scale.
11 03 34	CC	Gemini 4, CAP COM. The cuff is full-scale. Did you copy?
11 03 39	C	Roger.
11 03 40	S	Gemini 4, RKV Surgeon. We have a good blood pressure. Give me a mark when you begin your exercise. Over.
11 03 51	C	MARK now.
11 03 55	CC	Stand by. We have a small problem here.
11 04 18	C	..... right now.
11 04 19	C	MARK!
11 04 47	C	We're complete.
11 04 50	C	Blood pressure has come up.
11 05 23	S	Gemini 4, RKV Surgeon. We have another blood pressure. Standing by for your food, water, and sleep report.
11 05 31	P	Roger, this is Gemini 4. Pilot got up about 20 minutes ago and had about 3 and a 1/2 hours of rest. It wasn't deep sleep. It was an on-and-off type sleeping, but there was some sleep associated with it. I had for breakfast, small cereal, orange juice, bacon and egg bites, and calcified ..... bits. I've had 12 mouthfuls of water in just a few moments.
11 06 14	CC	Gemini 4, this is RKV CAP COM. Are you prepared to copy some preretro updates?
11 06 23	C	Stand by just a moment.
11 06 24	CC	Roger.
11 06 37	C	Roger, go ahead.
11 06 39	CC	Roger. 9-Charlie: 137. 2+02. 01 days 03 hours 40 minutes 03 seconds. (13 (o-three)+05. 93 00 00. GMTRC 01 days, 04 36 18. 7+59. RETRB 15+26. Do you copy?

11 07 30	C	Roger. 9-Charlie: 137. 2+01. 01 days 03 40 03. 13+05.
11 07 45	CC	Roger. I have a 10-Charlie: 123. 1+45. 01 days 05 13 47. 13+37. 11 DELTA: 087. 1+54. 01 days 07 10 46. 08+42. GMTRB 12+35. 103. ΔV 0, 01 days 06 08 44. 09+06. 17+59. Do you copy?
11 08 54	C	Roger. 9-3 was 04 36 18. 7+59. 15+26. 10-Charlie: 123. 1+45. 05 13 47. 13+37. 11 DELTA: 087. 1+54. 07 10 46. 8+42. 12+35. 103. 06 08 44. 9+06. 17+59.
11 09 35	CC	Roger. Roger. Roger.
11 15 01	P	Starting D-8 experiment. Starting it over the chest at 59.
11 15 08	C	02 30 59.
11 15 10	P	Yes. 02 30 59. Holding it there for one minute.
11 15 38	P	Why don't you, between each one of these, turn it off, Jim. When we start going to bed.....
11 15 58	P	Going into the crotch area.
11 16 02	C	Okay?
11 16 03	P	Yes .....
11 16 09	C	Wonder if I should put my gloves on?
11 16 14	P	..... not as comfortable. I'll tell you that.
11 16 17	C	.....
11 16 19	P	I say, it's not uncomfortable with all your gloves and jazz on. I don't know. Maybe you'll be, but .....
11 16 23	C	Do you want me to help you take ..... a little bit.
11 16 25	P	The what?
11 16 26	C	The top.
11 16 29	P	Yes, why don't you, and I'll stow it while you're in bed. Going to delay, you know, though.
11 17 07	P	Going up to the armpit.
11 17 49	C	Coming on back here.
(Time not available)	P	Front of the window.
	P	Front of the instrument panel.

[redacted]

[redacted]

	P	Going to the floor.
	C	If there's an experiment that comes up where you need me .....
	P	D-8 is OFF at this time. This run is completed.
11 45 21	P	I took an S-5 picture of a cloud formation over the Pacific coming on the Coastal Sentry Quebec area at 03:00 using f/11 at 150. It was frame no. 28. I'm taking several pictures for S-5. I'm right in the area of the tropical storm Carla. It's very heavily overcase right now. I'll take a few of the cloud formations. They have some very interesting formations interlaced on the top of them. Perhaps the camera will pick them up. It's so bright I'm going to shoot 250 at 16. Those will be frames 28, 29, and I'll be shooting at least two more. Those will be 30 and 31. I should be passing right over the area of the storm.
12 02 23	P	The Greenvich time is 03:18 and 25 seconds.
12 03 01	P	I'm shooting back at 250 at 11 now.
12 03 28	P	The Hasselblad hung up on that one. I don't believe it was a good one.
12 03 35	P	That was a good one.
12 04 54	P	The shutter to the Hasselblad seems to be delayed in dropping. I hope it's not ruining – occluding the pictures.
12 05 29	P	Looks like we're pretty well out of the typhoon area. I'll wait until I get out just a little further and try to get a broad over-all shot that covers the whole area.

COASTAL SENTRY QUEBEC

12 09 12	CC	Gemini 4, CSQ. I got cut up by Goddard loop. You say you didn't get a time of the hatch closure. Do you have some kind of an estimate?
12 09 22	P	Roger. I'll call you down one. Stand by. We've got it marked up.
12 09 25	CC	Well, don't look for it if it's out of place.
12 09 30	P	Roger. It was considerably later than we had planned.

[redacted]

12 09 35	CC	Roger.
12 09 36	P	Everything's going quite well now, up here now. Jim's gone on to sleep. ..... four hours of sleep. I had a good rest, also and I'm preparing to have a dinner of roast beef and cream corn.
12 09 51	CC	Roger. Roast beef and cream corn.
12 09 54	P	Roger. ..... over the hurricane, or typhoon area ..... there right over Carla and ..... which ones they were. I believe I got some good Hasselblad pictures of them down there, though. It was quite extensive cloud coverage from above and quite a few interesting formations.
12 10 14	CC	Roger.
12 10 18	P	Will you pass on also, that we're delaying D-9 as our flight plan calls for because we feel that we both should be up for it. It requires coordination.
12 10 27	CC	Roger. Will do.
12 10 33	P	Right now the pressure in the cabin is holding about 5.4. It seems to hold up there. That's where she went at lift-off. It seemed to hold there for a while and then it gradually drained down to about 4.9.
12 10 46	CC	Okay. Okay, everything here on the ground looks real good.
12 10 54	P	Rog.
12 11 02	P	It was really quite a view out there during the EVA.
12 11 07	CC	I imagine. Real good show.
12 11 12	CC	How long did you stay out?
12 11 15	P	Must have been out – I came out just as soon as we got the GO. Before Hawaii, actually, I came out ..... following the camera and installing the umbilical cord. It took a little bit of effort to get them in .....
12 11 50	CC	Gemini 4, CSQ. We've got LOS.
12 18 59	P	Took another picture of the cloud formation at 03:35..... a long drawn-out type formation.
12 27 28	P	One of the food bags has leaked at the inflow lid where you put the water gun.

12 28 42 P I'm looking out at the stars now. It's not as – it's light, not fully dark. It appears that the window gives you a filter that cuts down the smaller magnitude stars. I'm looking out right now at the Big Dipper and right on down to Arcturus and ....., and it appears to me that what I'm seeing right now are primarily the second and down to third order stars. The smaller ones are cut pretty well out of the picture at the present time. As you get deeper into night, I think more of them will come out, but you definitely don't see as many stars as you do flying at 40 000 feet in an airplane on a good clear night.

12 30 59 P The stars of Corbus is right out in view right now. It seems to be in pretty full view. I'm picking up probably down to about fourth order stars right now.

12 33 45 P As we get deeper into the night, the other stars are coming out. I can see them – I believe I can see down to about fifth magnitude now. It's still not as brilliant a display of stars as you'd see on a clear night at 20 000 feet out of the canopy of an aircraft. I've got my lights dimmed way down and it makes a much more spectacular view out. As a matter of fact, the stars seem to be coming out as my eyes adapt further. I'm looking right now at the Southern Cross and the stars around it. There seems to be a somewhat of a lighted area around it.

12 35 11 P I've got a very clear horizon now. It's rather light and I've got a horizon comprised mainly of clouds. I can see the clouds – the stars as they start to go down into the main air glow, but the clouds seem to give a more light horizon. It doesn't seem that we – earlier in the flight we've seen a horizon without clouds and it was much more – it was a rather thick layer of air glow and you could see the stars as they went down through it. In this cloud-type horizon though, the stars are more difficult to see; although I do note that some of the brighter ones are visible through it as they set.

12 36 17 P I'm looking out now at Gruss, and its stars are quite clear, even the small fourth and fifth order magnitude stars in the ..... This time of evening and at night, the skies are quite black and the stars are quite visible. I can see at least fifth order.

ROSE KNOT VICTOR

12 37 22	CC	Gemini 4, RKV CAP COM.
12 37 39	P	Roger RKV, Gemini 4.
12 37 41	CC	Roger. Request that you monitor primary O_2 source pressure, and go to O_2 High Rate to hold source pressure between 930 and 960 psi. Do you copy?
12 38 00	P	Roger, understand go to O_2 High Rate to control the O_2 source between 930 and 960 psi.
12 39 25	CC	Gemini 4, RKV CAP COM.
12 39 27	P	Roger. Go ahead RKV, Gemini 4.
12 39 30	CC	Roger. I have a 9-3 update for you.
12 39 33	P	Stand by, please.
12 39 45	P	Ready to copy.
12 39 47	CC	Roger. 9-3: 04 36 19. 07+59. 15+47. Do you copy?
12 40 06	P	Roger. 9-3: 04 36 19. 07+59. 15+47.
12 40 18	CC	That's affirmative.
12 40 21	P	Would you relay to Houston that we were out over ..... but we were able to see the coast of Texas quite clearly and actually picked up ..... outside you could see considerably more ..... coastline of Texas on up around into Louisiana ..... coming on down over the southern part of Florida, I could see the whole state of Florida, and we went ..... and about that time we had the command to start back in.
12 41 04	CC	Sounds real good.
12 41 07	P	Quite a view!
12 41 13	P	Also relay down that control with the gun was ..... very good in yaw, very good in pitch. Roll control wasn't as good but when I had the gun, I was able to pick a spot on the spacecraft and return to it. I was able to maneuver in translation and also in my attitude control .....
12 41 39	CC	Roger. Understand.