03 20 59 36	LMP	Okay. I was just going to say we haven't had an overboard waste water dump since clear back around the other side of the Moon. About this time, we're running out of the bags we've got on board here.
03 21 00 03	CC	Okay. I'm - I'm stupid this morning, Fred. I'm not quite sure what you are getting at.
03 21 00 14	LMP	Okay, Joe. We need some place to put the urine.
03 21 00 18	CC	Okay. It sounds to me as if the suggested receptacle is perfectly satisfactory. Do you think you can use it in its present configuration?
03 21 00 34	LMP	Oh, yes. We got all the innerconnects - hookups we need, but I wasn't sure if that gadget was devised solely with the 1/6g environment in mind, and whether it might leak somehow in zero g.
03 21 00 50	CC	I'll have them verify that, but off the top of my head, I'm sure it's going to be all right. We'll check it, Fred.
03 21 00 59	LMP	Okay.
03 21 05 22	LMP	Okay. How do you read, Joe?
03 21 11 53	LMP	Houston, Aquarius.
03 21 12 01	CC	Aquarius, Houston. Go ahead.
03 21 12 06	LMP	Okay, Joe. One thing I've noticed, that a couple of circuits there now - the pulse ... - at least the number of them, is markedly decreased, and ... rather bad and, apparently, that added venting we had out of the service module was some overboard relief valve, maybe letting go, because it appears to have stopped now.
03 21 12 38	CC	Okay, Fred. Copy that. Thank you.
03 21 23 14	LMP	Houston, Aquarius.
03 21 23 17	CC	Aquarius, Houston. Go ahead.
03 21 23 24	LMP	What do you read down there for partial pressure CO_2?
03 21 23 29	CC	Oh, let's see. We're reading 6.6 right now, Fred. What do you read?

03 21 23 38	LMP	I'm reading about 12.5. I guess we've got a gage problem ... I did just get a MASTER ALARM and no caution light; we kind of figured that's what it was, with CO_2 approaching its limit. Maybe it didn't quite come out here.
03 21 23 59	CC	Okay. Let me get a go, and I think it's time for us to go ahead and put these other canisters on. Stand by 1.
03 21 24 08	LMP	Okay. We went to 15 on the primary last night before I changed it and - -
03 21 24 16	CC	Roger that, Fred. We wanted to - -
03 21 24 18	LMP	- - I don't have a steady - I don't have a steady ECS light on at this time, Joe, so it must have just been a momentary.
03 21 24 28	CC	Okay. We know when you went to 15 last night on primary. We want to switch out today at 7.6. Let me check and see if we're ready.
03 21 24 41	LMP	Okay.
03 21 25 13	LMP	Yes. That's what it is, Joe. I've got something going on this alarm ... ECS light.
03 21 25 24	CC	Fred, Houston. The COMM isn't too sharp and I didn't copy.
03 21 26 34	CC	Okay, Aquarius; Houston - -
03 21 26 37	LMP	Houston, Aquarius. How do you read?
03 21 26 38	CC	- - Why don't you try it now? You're loud and clear now, Fred.
03 21 26 42	LMP	Okay. I was just - I'm getting MASTER ALARMS every few seconds and I am catching a glimmer now of the ECS light. For the time being, I have ... - ... open. Okay, now we got the ECS light on steady.
03 21 27 07	CC	Okay. Copy that. You have the MASTER ALARM, with the ECS light. We are ready to go ahead and get you on the command module canisters. And as the first step, I'd like to know whether you've inserted the commander's red hose to the second canister bag. Over.

03 21 27 29	LMP	Okay. Yes. Sure enough; the commander's red hose is inserted into the canister bag.
03 21 27 39	CC	Okay, Fred. The next thing I'd like you to do is to take some more gray tape and tape over half the outlet area of each of the blue nozzles; the commander's and the LMP's. The reason we're doing this is we're going to be running this loop through the secondary LiOH canister hole with the canister removed, and we don't have the flow restriction we need to keep the separator from overspeeding. Over.
03 21 28 11	LMP	Okay. Yes, that's right. So we want to tape over half of the - both the blue and the red commander hoses. Is that right?
03 21 28 22	CC	Negative, Fred. That's half of the commander's blue hose and half of the LMP's blue hose - the outlet hoses.
03 21 28 31	LMP	Oh, okay. I'll tape over half of each of the outlets. Stand by.
03 21 28 37	CC	Okay.
03 21 31 40	LMP	Okay. I'm going to turn off one suit flow valve at a time while I am doing the taping, Joe.
03 21 31 51	CC	Say again, please, Fred.
03 21 31 56	LMP	Okay, while I'm doing the taping, I'll have that particular suit flow valve in the suit DISCON-NECT position momentarily.
03 21 32 03	CC	Okay. Fine.
03 21 43 46	LMP	Okay. How do you read now, Joe?
03 21 43 49	CC	Okay, Fred. Reasonable COMM. Are you ready for the next step? Over.
03 21 43 57	LMP	Okay. One correction - the red hose that's connected up right now to the lithium cartridge in the LMP's - Wait a minute.
03 21 44 17	CC	Okay, Fred. Understand only the LMP's red hose is actually plugged into the canister bag. In that case, we would like you to follow the procedure for inserting the other red hose in the

other canister bag as follows: you cut a diagonal hole in one corner of the bag. Look at the other bag and see how it was done. Stick the hose in about 6 inches. Try to get the outlet nozzle down if you can, or else sideways, and then just tape up the hose to the bag to make a nice tight seal. Over.

03 21 45 02	LMP	Okay. Jack's back in here. I guess he can do that. Stand by.
03 21 45 08	CC	Okay.
03 21 45 58	LMP	How do you read, Joe?
03 21 46 00	CC	Okay, Fred. Is that done? Over.
03 21 46 06	LMP	No. That's still in works. I just wanted to comment you might pass on to Steve Grega, we thank you a lot for those rendezvous procedures. They went to making up these little boxes.
03 21 46 29	CC	Okay. We appreciate your appreciating it. We're just having a ball down here working on all kinds of new procedures, Fred. The CPCB is in session, and we expect to have your entry procedures out here by Saturday or Sunday at the very latest.
03 21 46 50	LMP	Saturday or Sunday?
03 21 46 52	CC	At the very latest!
03 21 47 14	LMP	Take your time, Jack.
03 21 47 36	LMP	Why don't you run that other hose back up in the tunnel so Jim can get some air.
03 21 47 54	LMP	Yes. I got it.
03 21 51 52	LMP	And Joe, how you read now?
03 21 51 55	CC	Satisfactory, Fred. Go ahead.
03 21 52 01	LMP	Okay. Back to the condensate container. I guess the only question I really need answered is will it leak?
03 21 52 11	CC	Is will it leak? Oh, yes. Stand by 1.
03 21 52 22	LMP	And we've checked all the fittings and I know I can hook everything up to our UCDs. So, if it doesn't leak, we can transfer.

03 21 52 31	CC	Okay, Fred. We still don't have a final answer on whether or not it'll leak. If you need it, I'd go ahead and use it; and standing by for your completion of the hose-insertion procedure.
03 21 52 52	LMP	Okay. The hose-insertion procedure ... the second cartridge is complete.
03 21 52 59	CC	Okay. That's complete. The next step is to switch to the primary CO_2 canister and remove the secondary canister and stow it. Over.
03 21 53 14	LMP	Okay. I'm going to have to get off COMM here; I'll let Jack get the headset.
03 21 53 19	CC	Okay.
03 21 53 28	CMP	Hey, Joe. I'm on the headset now.
03 21 54 06	LMP	Is that secondary? ... secondary?
03 21 54 24	LMP	Both cartridges are out.
03 21 54 33	CMP	Okay, Joe. Fred has the secondary cartridge out. We're back on primary now.
03 21 54 39	CC	Okay, Jack. The next step is to place the command module canisters with the hoses attached in a suitable location to permit the bottom of the canister to be exposed to free airflow and tape them in place. Ideally, well, it doesn't matter. Just - just pick out your own spot.

END OF TAPE

03 21 55 05	CMP	Okay. I'm going to tell you where they are. They're both situated, as you say, with the bottom of the canister exposed to free air, and one is sitting right by the - the LMP's is sitting right by the EPS panel, and the CDR's is up in the tunnel.
03 21 55 26	CC	Jack, Houston. The COMM got real noisy there, and I didn't copy that. Stand by a moment.
03 21 56 02	CMP	Okay, Joe. How do you read now?
03 21 56 04	CC	Okay. That's real good, Jack; go ahead.
03 21 56 09	CMP	Okay. The canisters are situated as you - as you would like with the bottom of the canister exposed to free air.
03 21 56 17	CC	Okay.
03 21 56 18	CMP	The position of the LMP's canister - The LMP's canister is sitting on the EPS panel now, and the CDR's canister is positioned up in the tunnel.
03 21 56 31	CC	Okay. Real fine, Jack. The next step is to physically separate both blue hoses a good distance away from the canister so that we don't short circuit the flow, and tape them in place; and the ideal location for them would be up in the tunnel so as to get some flow into the command module. Over.
03 21 56 57	CMP	Both hoses in the - up into the command module?
03 21 57 03	CC	Oh, you can use your judgment on that, Jack. We'd like at least one, and the recommendation that I got was to put them both up in the tunnel.
03 21 57 15	CMP	Okay. We have the LMP's blue hose up by the LMP's window and the - Of course, the red hose is separated by some 4 feet. And the - Okay. We're going to - and the other hose - the - has the extension on it - The CDR's blue hose, of course, has the extension on it, and it's blowing way up in the command module. And the red hose is about - Oh, it's right at the docking ring where the blue latches are, so there's about 4 or 5 feet difference from there, too. Is this satisfactory?

03 21 58 03	CC	Okay, Jack. That sounds satisfactory. The next steps are - are suit-loop configuration steps, and the first one is to - -
03 21 58 14	CMP	Okay. SUIT DIV - -
03 21 58 17	CC	- - is to place the SUIT DIVERTER valve to the PULL EGRESS position.
03 21 58 26	CMP	Okay. SUIT DIVERTER valve to PULL EGRESS.
03 21 58 31	CC	That's affirmative - -
03 21 58 32	CMP	That's done - -
03 21 58 33	CC	Okay. The next step is CABIN GAS RETURN to EGRESS. Over.
03 21 58 43	SC	...
03 21 59 24	CC	Okay, Jack. Did you copy CABIN GAS RETURN to EGRESS? Over.
03 21 59 32	CMP	No, I didn't get that, Joe. CABIN GAS RETURN to EGRESS.
03 21 59 37	CC	That's correct.
03 21 59 43	CMP	Okay. That's done.
03 21 59 45	CC	Okay. Next, SUIT CIRCUIT RELIEF to CLOSE. Over.
03 21 59 52	CMP	SUIT CIRCUIT RELIEF to CLOSE.
03 21 59 55	CC	Roger.
03 22 00 01	CMP	Okay. I got that done.
03 22 00 03	CC	Okay. And the last step is select secondary CO_2 canister. We'll let it flow through the empty hole, and let's see how we do.
03 22 00 13	CMP	Select secondary CO_2 canister.
03 22 00 16	CC	Roger, Jack. That completes that procedure, and the next thing I've got for you is a procedure for going back into the command module and powering up the main buses temporarily using the BUS TIE switches. We want to do this for two reasons: first of all, we want it absolutely verified that

there are no loads on the main buses, that we've got everything off and that the buses look good; and the second thing we want to do is to power the bus - the main buses, with the BUS TIE motor switches, and then depower them by pulling the circuit breakers, leaving the MAIN BUS TIE switches in the on position, just to assure that they'll be there when we need them, whether the batteries get cold or not. Over.

03 22 01 33	CMP	Okay, Joe. How you read?
03 22 01 36	CC	Better now, Jack. Satisfactory. Did you copy my rationale for the main bus powerup?
03 22 01 45	CMP	Yes, I did. You want to remove - You want to power up both buses, with the BUS TIE motor switches; first of all, to see that there are no loads on the buses, and second, and then depower the buses by pulling the circuit breakers to insure that the motor switches don't - that the BUS TIES stay on so that they're there when we need them.
03 22 02 09	CC	That's correct, Jack. Are you ready to copy the procedure?
03 22 02 15	CMP	Okay. Go ahead.
03 22 02 16	CC	Okay. As the first step, I have one change to the basic configuration that we gave you, and it's two more circuit breakers that we want open. On panel 225 - Are you ready to write that down? Over.
03 22 02 35	CMP	Yes. I'm all ready, Joe. Go ahead.
03 22 02 48	CMP	Joe, I'm all ready. Go ahead.
03 22 02 50	CC	Okay. On panel 225, we want the RENDEZVOUS TRANSPONDER FLIGHT BUS circuit breaker open, and the S-BAND FM TRANSMITTER/DSE FLIGHT BUS circuit breaker open. Over.
03 22 03 24	CMP	Okay. TV RENDEZVOUS TRANSPONDER FLIGHT BUS, open; TV S-BAND TRANSMITTER/DSE FLIGHT BUS open on panel 225.