

SL-III MC-1816/1

Time: 19:03 CDT, 45/00:03 GMT

9/9/73

CC - - Now when I mentioned a quarter to a half of a pound. I meant if you were to put a rigid body weighing your same amount in there as opposed to a slightly flexible body restrain strap that the contribution due to a little bit of motion like that may be a quarter to a half of a pound. Bill is confident that he's got the accuracy to repeatability down to 1/10 of a pound.

SPT Okay, that's just about what we were seeing up here. We were discussing it between Hawaii and Goldstone. And we think we can get to about plus or minus two digits in the forth place and our calculations indicates that just about a tenth of a pound if we've done it right.

CC Okay now looking at that device - as a measurement insensible loss, we did discuss in insensible at the last science conference. And it's a tough thing to get at it. If you want to get it absolutely precisely you kind of have to wear a cellophane suit and a mouth piece all day which of course we can't do. Now, in terms of - I've a comment that comes next week. In terms of a -

SPT (Garble) already did it, he wants us to try it.

MS (Laughter)

CC Okay, in terms of what we did see, you recorded three studies between 0.2 and 0.6 pounds. Now when I did a theoretical calculation to come with a reasonable value for seven hour sleep period, taken a look at your intake and output, I've calculated 0.5 pounds so it comes in there pretty close considering the 0.1 (garble) device.'

SPT Yeah, I'll try that again too. I'm not too happy about that one measurement that was only 0.2 maybe I wasn't (garble) careful. I'll try it again, too.

CC On the ground the average person loses about 1200 ccs, that's spread halfway between lets say 600 ccs through the respiration and another 600 ccs due to imperceptible flesh. And I calculated, based on your 2500 cubic calories a day and also about an insensible loss taking your outputs from your input to be about a 1000 ccs and drawing a portion between using about 70 calories an hour during your sleep in portioning it out, I came out to a losing about .5 pounds during a sleep period. So it's pretty close.

SPT Okay, sounds fine and I'm glad your coming out that closely.

CC A nd some other things Bill is interested in and that is a couple more zero measurements. If a some morning when you get weighed do you just run from zero measurements and shoot those down on the Evening Status Report, he'd appreciate it.

SPT Sure, that's the kind of request we like.



SL-III MC-1816/2

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9/9/73

CC Okay, and one other thing if - if even a zero mass device is during and - a - after a dump.

SPT Okay. My guess is that you can't even tell it when there is a GG dump underway. Do you have any indication to think that suggest that you can?

CC No I don't think we got that evidence Owen and of course it depends - some what on how large a dump it is.

SPT Well, it always was pretty small - pick a 2.5 degrees some 2 or 5 degrees somewhere around there. But a - we'll - give that a try. And I bet just no indication at all and we can maybe take that out of the next guy protocol.

CC Okay, and if you don't have anything else on that, I'll move on to a few things on M171.

SPT Let's go on.

CC They would appreciate getting a max heart rate during your PT, now anytime your instrument of course, there - there able to get that and we've see a bunch of them all ready. So they are interested in that data though.

SPT Okay. Now that's - you don't get that from (garble) do you?

CC No we don't get that Owen.

PLT Okay, when you say your interested in the rate you just mean what the number is or a verbal recording of how high it got during the exercise or what were you asking for.

CC Just one number, peak heart rate.

PLT Okay, I think Owen probably pretty well knows those right now because we see them every day when we ride the bicycle. I can almost tell you mine after 20 minutes of work at each variety of power levels but we'll try to record those and a - I was interested in what day do you do get down during our normal ergometry. Apparently you see workload, I don't know whether or not see you total watt minutes.

CC No we don't see total watt minutes.

PLT Only power, apparently.

CC And in rmp too of course.

PLT Okay thank you.

CC And I think on channel A, you may still have some questions on why V dot 02 is running low up there.

PLT (Garble) understands that there is a 6-1/2 up correction on 02 dot and think there was 2 or 3 percent down on C02 dot and do understand it what the effect is on our cue of course so I don't - there was a question in my mind about what our cue card is written in. Our cue card mentions that 02 dot correction but it doesn't say whether it is or is not. Inserted in the table, but that's sort of a minor point at this time.



SL-III MC-1816/3

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CC Yeah, I looked at that too and I think that is inserted in the cue card. That is what you should expect.

SPT Those numbers on the cue card is what we should be reading on the - the instruments.

CC Let me get a quick verification on that.

SPT Now that's the way I interpreted it anyway and then there's a correction made once it gets on the ground.

CC Yeah, we think that cue card is true Owen, and if it's not true I'll get that up to you.

SPT Okay.

CC And the reason for that difference is that the (garble) in the mass spect analysis in nitrogen and it has been proven out and that at 6.5 percent 2 percent of the CO2 that was derived from running the white backup instrument in the 5 psi chamber.

SPT Okay.

CC And I've got about 30 seconds til LOS here as far as the Skylab-2 data goes I just like to say that we are taking a look at that. We're discussing the past but any new thing come up I will get it to you.

SPT Okay, fine Story.

CC And we're about 30 seconds to LOS here, see you over Bermuda with Bob Parker, be dumping the tape recorders there.

PAO Skylab Control; Greenwich mean time, 00:10 minutes after the hour as the 253 day Greenwich mean time starts for the Skylab-3 workshop. Doctor Story Musgrave concluded the medical conference with the Skylab crew. Discussing several more experiments, the M172 body mass measurement devise, principle investigator which is Doctor William Thorton and also M171 experiment, the M171 is the metabolic analyser, Doctor Musgrave reported to the crew his new data is reduced from Skylab-2 flight, the flight of Astronaut Pete Conrad, Doctor Joseph Kerwin and Paul Weitz. This new information will be passed up to the crew. Next acquisition in approximately 2 minutes will be at Bermuda in which time Astronaut Bob Parker will continue the weekly science conference and he will be concentrating on the corollary experiments performed during the previous week. We'll leave the line open for that discussion.

END OF TAPE