

363 18 00 59 SPT There's a lot of - a lot of threads here.

PLT Yeah, it makes - you having trouble putting the thing around there?

SPT No, I got it around there. I'm just -

PLT Yeah, okay. Screw clamp -

363 18 01 06 SPT Yeah, it's just been taking alot of it's got a lot of fine - fine thread here and a lot of turns on these things.

PLT That's correct, that's right it takes patience. And the words are screw the clamp by turning the top knob clockwise until tight and then turn the lower knob counterclockwise, until tight.

SPT All right that's what I'm doing. Now let me make sure my finger is all the way against there.

PLT And, Jer, you can be getting the filter case.

CDR Okay.

363 19 03 04 SPT Coming up on some beautiful thunderstorms down there.

SPT Okay. Okay that's on there. And we're coming up - coming up on the lock.

CDR Okay.

363 18 03 36 CC Skylab, we're reading you loud and clear. Carnarvon and Honeysuckly for 14 minutes.

SPT roger, Story.

SPT Okay, that's locked. Go ahead, Bill. Read on.

PLT Okay. Then you have secured the clamp

by turning the top knob clockwise and
the lower knob counterclockwise. EV-2,
unstow TO25 filter case and pass to EV-1.

363 18 03 56 CDR

Okay, it's all ready stowed and attached
to the temporarily ...

PLT

Okay, install this is for EV-1, install
filter holder Alfa to the Alfa 1 position.

SPT

Okay, just stand by.

SPT

- got to get back in the foot restraints
here.

CDR

Okay, there it is, the safety tethered.

SPT

Very good.

363 18 04 28 CDR

Okay, and he's getting Alfa 1 out.

SPT

Just a minute here, Bill.

SPT

Let me make sure you understand the
orientation here.

CDR

That looks pretty good.

SPT

Yeah. Okay get the tether put away and
we'll be all set to go.

CDR

How much more high time, Bill?

363 18 04 47 PLT

Six and a half minutes.

CDR

Okay.

PLT

Your doing real good work. Real good.

PLT

It's like we've taken full of advantage of
that night pass.

363 18 05 01 CDR

Want a tether for that, Ed?

Dump Tape 363-07
Page 49 of 49

SPT I'll tell you what, there's no way
to do it, Jerry.

CDR Okay.

363 18 05 08 SPT You can't tether it. ... draw back
in this thing. You got to put the
only thther attach point in with your
head up.

END OF TAPE

Dump Tape 363-08
Time: 363:18:05 to 363:19:05 GMT
12/29/73
Page 1 of 52

PAO

363 18 05 00 CDR Want a tether for that, Ed?

SPT I'll tell you what. There's no way to do it, Jer.

CDR Okay

SPT You can't tether it, especially full. That's the drawback of this thing - you gotta put the only tether - from the ... point in, that you have.

CDR Can you put it in the other way?

SPT Never tried it the other way. Okay, let's see. Alpha-1 position and let me check something. Sometimes help is not always in the open bag. Yes, that's Alfa - okay?

CDR Go ahead.

SPT All right. I'm looking here and I can't see that we can do anything else here.

CDR Okay. What about 201?

PLT Want to get out that - get that out before your ... prep C [?] goes? It's approximately the same place as the T025.

CDR Yeah. Oh, okay.

PLT Okay. Now let me read ahead what you will be doing at sunrise. Okay?

CDR Okay.

PLT When we get ready for data take in an ... alignment which we will be as soon as we come up to Sun, I'm going to do a C&G control enable, DAS entry with hoses [?] for both S020 and T025.

And you will adjust the S020 until the coarse, small solar images seen in the boresight doing continuous adjustments to the fine, large solar images visible on the boresighter.

PLT I think you know more about this than I do, Ed. You know what - you know what the picture is supposed to look like there.

SPT That's right.

PLT The only thing that you have to do is - once you get satisfied with the picture, let me know what - how - what the alignment is in terms of the little numbers there, that octal grid. Okay?

PLT Now, for the T025 it's exactly the same thing. You're going to ... - instead of - sort of pushing it with your hands, you're going to align by turning the X and Y knobs.

CDR Tell you what we'll do. Let's get S020 up and running first because that's the one that's got the long exposures. Then we'll start working T025.

PLT Okay, now, I would like to ask one question. The - You told me last night on this exposure protocol that these ones that are written in here are the ones that we want to take. But - all right and -

CDR Start off with frame number 5 with your highest priority, which I believe is -

PLT 45 minutes.

CDR Right.

CDR Okay, Ed. I wonder - would it be any help for me to get in that - those restraints and hold you while you fiddle with the experiment?

SPT It may well, Jer. I was just thinking about that because it looks as though I'm - even though I've grouned [sic] little I'm still about a foot too short to make my head over there.

363 18 08 05 CDR Aha.

CDR Well, I could hold you like a ... eating a loaf of bread under my arm, you know, and you could just kinda go where you wanted. (Laughter)

363 18 08 14 SPT All right.

CDR We'll give it a go. Let me -

SPT All right.

CDR Let me get out of the restraints here and get up in approximately the right position. My, that blue is a pretty blue.

SPT Sure is.

SPT Think now, Bill.

PLT 2-1/2 minutes.

SPT Okay, and you know what we're over?

CDR You'll never have a fly ...

PLT No, I don't.

CDR We're coming up over the tip of Australia and headed for New Zealand. We'll be over New Zealand in 10 minutes.

SPT Okay. I was just looking at the thunderstorms here -

CDR Let us with one - one photos op that tends to propagate - there is a volcano will then go off.

PLT Yeah, I noticed that. It's very similar to the solar flare time lapse photographs we've seen.

SPT Dirty-birdie.

363 18 09 38 CDR Bet it is.

CREW OOh!

SPT How about an EMU check?

CDR Yeah. Why not?

SPT 3.6 in the lights for EV-1.

CDR 3.7, no lights EV-2.

CDR Good. ... that is. That's rising right there. That's almost the same intensity as the comet, isn't it?

SPT Yeah. It's a pretty bright star.

CDR ... there's a star right above the horizon now, just about where the Sun's going to be coming up. Could that be Mercury?

SPT About 20 degrees or - No, about 15 degrees right now. Rising pretty fast. Has about the same intensity visually as the comet. If anything, it might even be a tad dimmer.

CDR Could it be Mercury?

CC We're working on the answer to that, Skylab.

CDR I think it's about 4 - only about 5 degrees up off there now.

SPT It's only one finger above the airglow.

CDR Okay, there's the Sun.

CDR Okay, let's start working on the
S020. The light's on -

PLT Okay, okay. I'm going to - -

SPT I'm beginning to get my - my
head up here.

CDR All right. How's that?

363 18 11 03 SPT MARK.

SPT I'll tell you what, I'm going to have
to si - sight it in closely without
the - without using their sighter.
It sort of -

CDR Okay, where'll you - -

SPT I gotcha by the mean here.

PLT Okay, we're on C&G control,
SOLAR INERTIAL.

SPT Okay, Jer, now let me come back down
here - -

CDR All right.

SPT - - and tell Bill we got T025 right
in there now. I can't get my head over
far enough to see the darn thing.
Uh, hum.

SPT Oh, back now to hitting D-7. I'm
going to have to loosen this up and
move it up a little bit. Hell,
dang it.

CDR Yeah, I see what your doing.

SPT See D-7 that -

CDR Yeah.

SPT - - that - that knob you've -
hampering me from furthering the
small image.

SPT Okay, that's up a little.

CDR Tighten her up again.

CDR I got it tight.

SPT Now let me - let go of my
leggs again.

CDR Okay. Back up in your - -

PLT Story, you're looking at the
OUTER GIMBAL angle on GIMBAL 3.

363 18 12 42 CC Here we are, Bill.

PLT Yeah, I just came out of nominal H cage.
Should I do another nominal H cage,
Story?

CC Stand by 1.

363 18 13 17 CC Stand by 1 on that cage ...

CDR Watch you head, Ed?

PLT I am standing by.

CDR If you'd rear back, admire your work,
you're liable to knock the camera off
of T-25.

SPT Okay, thank you.

PLT Doggone, maybe we got - momentum out
to but we got a gimbal on the stop.
And it's the very thing that Ed's been
talking about.

CC We don't think we need to cage right
now, Bill.

PLT BEautiful, thank you.

CC Okay, while I've got you, I've got
a comment on when to start that S201
maneuver.

PLT Go ahead, Story; I'm ready to copy.

CC Okay. Don't start it prior to 25 minutes of night remaining on your next nightside pass. That'll save us a few TACS by not exposing the ... of gravity gradients as long as we need to.

PLT By ... to state the ... you want to start after 25 minutes.

CC Excuse me.

363 18 14 22 SPT I got her centered, I think, pretty well, but the trouble is I'm afraid I'm going to do just what Bill said.

363 18 14 29 CDR Yeah, you are. I wouldn't fool with it, Ed.

SPT Yeah, I think you're right.

CDR If you got it close - if it's well within the square, I'd leave it there.

PLT Hold on.

CC That's correct, Bill.

PLT Rog.

CDR I can see it clear back here. Okay.

PLT Till it ... out what it does.

CDR Okay, I guess the words are, you want the - the larger faint circles inside the square.

SPT Right. Well, that it is.

CDR Good show. And when it stabilizes out I'll give you a number. Unfortunately every time we get the exposure going we're going to have ourselves a - a transient for a little while.

SPT That's right.

CDR Okay, Bill, go ahead with the S020.

CDR ... job ... now.

PLT ...

CDR All right. You got S020 aligned?

PLT Uh - that's right.

SPT Let's see here now, I want to set my timer here for 45 minutes.

CDR That'll do it, Ed.

363 18 15 26 PLT Yeah, okay, when you get the timer set and give me a stand, I'll go from storage to frame number 5.

363 18 15 32 SPT That's correct.

PLT Okay, standing by for the mark.

SPT Stand -

CDR Okay, stand by -

363 18 15 37 CDR MARK.

CDR Can you ...

SPT There you are.

CDR All right. 45-minute exposure is underway.

CDR All right. Now, just -

PLT Let me give you the numbers where it dumps out here.

CDR Okay.

SPT Okay, now, Jer, I would like for you to keep me honest about something here.

CDR Go ahead.

SPT We have this temperature measurement to take.

CDR Yeah.

SPT And I'm about to turn the page from - I'll be going back to S020. Anyway, remind me that we want to take this temperature measurement.

CDR Yeah. On the next night pass. Right after sunset.

SPT Okay. It says do the following procedure during last daylight pass on a non - interference basis.

CDR On a daylight pass?

SPT That's what it says.

CDR Okay.

363 18 16 30 PLT Anyway, how ab - It I - If I start giving you the ingress procedures - yank my chain on that.

CDR Okay, I'll try to remember it.

PLT Okay. Okay, I'll give you a number here.

CDR You might go back to ingress there, Bill, and just write a note that says, "Did you do the temperature measurements?"

PLT Yeah. Okay, let me get - I can do that in a minute, and I will.

CDR Okay.

PLT Let me get Ed's numbers here.

363 18 16 51 SPT Okay, on the vertical. The bottom
is on the minus 2, the top is on plus 4.
That's the large disk.

PLT Okay, that's the vertical.

SPT And in left/right, we're - at just about -
just about centered - looks like 3 and 3.

CDR Here comes New Zealand.

PLT 3 and 3, so we're centered pretty well
left/right and only slightly off in
vertical.

SPT Okay, now let me get the - -

CC Skylab, we're 30 seconds to LOS, about
38 minutes to Bermuda at 18:52.
All your systems are looking good.

363 18 17 30 CDR Thank you, Story.

SPT Thank you, Story.

PLT Okay, now let me get you cooking on
T025 - -

CC And, Bill, those gimbal angles you're
looking at - whenever you enable CMG
control until the attitude becomes
stable, you'll probably see some
diversions like that.

PLT Okay, thank you a lot for that
information.

CDR Okay, what am I hitting up against the
DAC ...?

PLT Okay - -

SPT That's just the boom; you're okay.

PLT Okay, now, Ed, comes another hard
thing. We got T020 - S020 cooking.

SPT Okay. Go ahead.

CDR You want your feet over here, Ed,
or where?

SPT Yeah, I want them back; I don't want
to be going where I'm going.

CDR Oh, okay.

PLT Okay, now - -

CDR I got it.

PLT - - let me read some instructions
here again.

SPT Yeah.

CDR Hang on just a minute, Bill. We're
busy adjusting Ed's position here.

PLT Okay.

SPT ...

CDR Now, if you roll left, Ed, you got it
made.

SPT T025, looks like I got to rotate this
way, Jerry.

363 18 18 20 CDR Yeah, you're good shape.

SPT All right now, I'll get here. I'll
probably use this as a -

CDR How's that?

SPT Well, I got to move my stuff to
my left to get my head behind here to
see the - there we go.

CDR All right. Okay, Bill.

PLT Okay, just got through making my
 notes to myself on that temperature
 measurement.

CDR Okay, we're - ... - Ed's starting
 to align 25, now.

PLT Okay, good and you know it's very
 easy to jiggle that S020, so just be
 extra special careful.

SPT You're so right.

CDR I'll keep an eye on him.

363 18 19 03 PLT Okay, I'll read the words. Image will
 appear red on edge of filter and orange
 in center. And if you can just
 make the little circle - make a sma -
 make a sort of a small circle there
 with a red band on the outside around
 the circumference and you got it.

CDR Can you see through the camera, Ed?

SPT Yes, I sure can; I'm getting there.

CDR Good show.

PLT Great.

SPT That darn mirror didn't pop on it this
 time.

PLT Just a tweak ... one axis at a time.
 Penturbation - type thing here.

CDR For the Earth-observations guys,
 ' New Zealand was clouded over. Only
 a very - southernmost tip of South
 Island was open.

363 18 20 16 SPT Okay, let's hear their words on that
 again, Bill.

PLT Okay. Align/extend by turning X and Y.
 Now, the Sun image is located in center
 of occulting disk. Image will appear