	PLT	That's correct. That's right. It takes patience. And the words are, secure the clamp by turning the top knob clockwise until tight, and then turn the lower knob counterclockwise until tight.
	SPT-EVA	All right. That's what I'm doing. Now let me make sure my - that the finger is all the way against there.
	PLT	And, Jer, you can be getting the filter case.
	CDR-EVA	Okay.
363 18 03 03	SPT-EVA	They got some beautiful thunderstorms down there. Okay.
	SPT-EVA	Okay, that's on there. And we're coming up with the - coming up on the lock.
	PLT	Okay.
363 18 03 36	CC	Skylab, we're reading you loud and clear. Carnarvon and Honeysuckle for 14 minutes.
	SPT-EVA	Roger, Story. Okay, that's locked. Go ahead, Bill. Read on.
	PLT	Okay. Then you have secured the clamp by turning the top knob clockwise and then the lower knob counterclockwise.
	SPT-EVA	Right.
	PLT	EV-2, unstow T025 filter case and pass to EV-1.
363 18 03 56	CDR-EVA	Okay, it's already stowed and attached to the temporary restraint.
	PLT	Okay, install - This is for EV-1 - Install filter holder Alfa to the Alfa-1 position.
	SPT-EVA	Okay, just stand by until I get back in the foot restraints here.
	CDR-EVA	Okay, there it is, and safety tethered.
	SPT-EVA	Very good.

363 18 04 28	PLT	Okay, and he's getting Alfa 1 out.
	SPT-EVA	Just a minute here, Bill. Let me make sure I understand the orientation here.
	CDR-EVA	That looks pretty good.
	SPT-EVA	Yes. Okay, get the tether put away and we'll be all set to go.
	CDR-EVA	How much more nighttime, Bill?
363 18 04 46	PLT	6-1/2 minutes.
	CDR-EVA	Okay.
	PLT	Boy, you're doing real good work. Real good work. Looks like we've taken full advantage of that night pass.
363 18 05 00	CDR-EVA	Want a tether for that, Ed?
	SPT-EVA	I'll tell you what. There's no way to do it, Jer.
	CDR-EVA	Okay.
	SPT-EVA	You can't tether it. That's the fault - that's the drawback of this thing - you've got to put the only tether attach point in, that you have.
	CDR-EVA	If you put it in the other way?
	SPT-EVA	Never tried it the other way. Okay, let's see. Alfa-1 position and let me check something. Sometimes Alfa's not always in the Alfa bag. Yes, that's Alfa. Okay.
	CDR-EVA	Okay, go ahead.
	PLT	All right. I'm looking here and I can't see that we can do anything else, Jer.
	SPT-EVA	Okay, what about 201?
	CDR-EVA	Want me to get out that - get that out and point it plus X?
	PLT	It goes - it's approximately the same place as the T025.

CDR-EVA Yes.

SPT-EVA Oh, okay.

363 18 06 15 PLT Okay. Now let me read ahead what you will be doing at sunrise.

CDR-EVA Okay.

PLT Okay, when we get ready for data take in an O 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 which holds us for about S020 and T025. And you will adjust the S020 until the coarse, small, solar image is seen in the boresighter and continue adjustments until the fine, large, solar image is visible on the boresighter.

363 18 06 48 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-EVA 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 - except you instead of sort of pushing it with your hands, you're going to align by turning the X and Y knobs.

SPT-EVA Tell you what we 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.

SPT-EVA Right.

PLT All right, and - -

363 18 07 38 SPT-EVA Start off with frame number 5 with your highest priority, which I believe is -

PLT - - 45 minutes.

SPT-EVA Right.

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

363 18 08 05 CDR-EVA Uh-huh.

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

363 18 08 14 SPT-EVA All right. We'll give it a go. Let me - -

CDR-EVA All right.

SPT-EVA - - let me get out of the restraints here and get up in approximately the right position. My, that blue is a pretty blue.

CDR-EVA Sure is.

SPT-EVA *** think now, Bill?

PLT 2-1/2 minutes.

SPT-EVA Okay, and you know what we're over? Oh, you don't have the slider out, do you?

PLT No, I don't.

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

SPT-EVA Okay, I was just looking at the thunderstorms here -

363 18 09 10 SPT-EVA Notice when one - one ... goes off, tends to propagate - there's a whole chain of them that go off?

	PLT	Yes, I noticed that. It's very similar to the solar flare time-lapse photographs we've seen.
	SPT-EVA	***
	CDR-EVA	Purdy, purdy [sic].
363 18 09 38	SPT-EVA	That it is.
	CDR-EVA	Oooh!
	PLT	How about an EMU check?
	CDR-EVA	Yes, why not?
	SPT-EVA	3.6 and no lights for EV-1.
	CDR-EVA	3.7 no lights, EV-2.
	PLT	Good.
	SPT-EVA	*** star that is, that's rising right there. That's almost the same intensity as the comet, isn't it?
	CDR-EVA	Yes. It's a pretty bright star.
	SPT-EVA	Jerry, there's a star right above the horizon now, just about where the Sun's going to be coming up.
	CDR-EVA	Could that be Mercury?
	SPT-EVA	About 20 degrees - or, no about 15 degrees right now. Rising pretty fast. And it's about the same intensity visually as the comet. If anything, it might even be a tad dimmer.
363 18 10 35	CDR-EVA	Could it be Mercury?
363 18 10 38	CC	We're working on the answer to that, Skylab.
	CDR-EVA	I think it's about - only about 5 degrees up off there now.
	SPT-EVA	It's only one finger above the airglow. Okay, there's the Sun.

SPT-EVA Okay, let's start working on the S020.

CDR-EVA ...

PLT Okay, I'm going to -

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

CDR-EVA All right. How's that?

363 18 11 03 SPT-EVA ...

SPT-EVA I'll tell you what, I'm going to have to try and sight it in coarsely without the - without using their sighter to turn them.

CDR-EVA Okay.

SPT-EVA ... tighten.

CDR-EVA I got you by the knee here.

PLT Okay, we're on CMG control, solar inertial.

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

CDR-EVA All right.

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

CDR-EVA Uh-hum.

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

363 18 12 05 CDR-EVA Yes, I see what you're doing.

SPT-EVA See - D-7, that - -

CDR-EVA Yes.

SPT-EVA - - that - that knob is - hampering me from centering the small image.

SPT-EVA ... up a little. Tighten her up again.

	SPT-EVA	Get it tight.
	SPT-EVA	Now let me - let go of my legs again.
	CDR-EVA	Okay.
	SPT-EVA	Back up in here.
	PLT	Story, are you looking at the OUTER GIMBAL angle on gimbal 3?
363 18 12 42	CC	Yes, we are, Bill.
	PLT	Yes, 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, Bill.
	CDR-EVA	Watch your head, Ed?
	SPT-EVA	Yes.
	PLT	I am standing by.
	CDR-EVA	Just don't rear back to admire your work, or you're liable to knock the camera off of T025.
	SPT-EVA	Okay, thank you.
	PLT	Doggone, we - we got momentum out the gazoo, but we got a gimbal on the stop. And it's the very thing that Ed was talking about.
363 18 13 40	CC	We don't think we need the 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 vehicle to its gravity gradients for as long as we need to.

	PLT	Roger; I'll state the contrapositive, you want to start after 25 minutes.
	CDR-EVA	Excuse me.
363 18 14 22	SPT-EVA	I got it centered, I think, pretty well, but the trouble is I'm afraid I'm going do just what Bill said.
363 18 14 29	CDR-EVA	Yes, you are. I wouldn't fool with it, Ed.
	SPT-EVA	Yes, I think you're right.
	PLT	If you got it close - if it's well within the square, I'd leave it there.
	SPT-EVA	Hold on.
	CC	That's correct, Bill.
	SPT-EVA	Roger.
	CDR-EVA	I can see it clear back here. Okay.
	SPT-EVA	Okay. *** when it damps out what it does.
	SPT-EVA	Okay, I guess the words are, you want the - the larger faint circles inside the square.
	CDR-EVA	Right.
	SPT-EVA	Well, that it is.
	CDR-EVA	Good show.
	SPT-EVA	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.
	CDR-EVA	That's right.
	SPT-EVA	Okay, Bill, go ahead with the S020. ...
	PLT	All right. You got S020 aligned?
	SPT-EVA	That's right.

	PLT	Let's see here now, I want to set my timer here for 45 minutes.
	CDR-EVA	That'll do it, Ed.
363 18 15 26	SPT-EVA	Yes, okay, when you get the timer set and give me a stand, I'll go from storage to frame 5.
363 18 15 32	PLT	That's correct.
	SPT-EVA	Okay, standing by for your mark.
	PLT	Okay, stand by -
363 18 15 37	PLT	MARK. And your - -
	SPT-EVA	There we are.
	PLT	For 5.
	PLT	45-minute exposure is underway.
	PLT	All right. Now, just -
	SPT-EVA	Let me give you the numbers when it damps out here.
	PLT	Okay.
	PLT	Okay, now, Jer, I would like for you to keep me honest about something here.
	CDR-EVA	Go ahead.
	PLT	We have this temperature measurement to take.
	CDR-EVA	Yes.
	PLT	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-EVA	Yes. On the next night pass. Right after sunset.
	PLT	Okay. It says do the following procedures during last daylight pass on a noninterference basis.
	CDR-EVA	On a daylight pass?

	PLT	That's what it says.
	CDR-EVA	Okay.
363 18 16 30	PLT	Anyway, how ab - if - if I start giving you the ingress procedures, yank my chain on that.
	CDR-EVA	Okay, I'll try to remember it.
	PLT	Okay.
	SPT-EVA	Okay, I'll give you a number here.
	CDR-EVA	You might go back to ingress there, Bill, and just write a note that says, "Did you do the temperature measurements?"
	PLT	Yes. Okay, let me get - I can do that in a minute. I will.
	CDR-EVA	Okay.
363 18 16 48	PLT	Let me get Ed's numbers here.
363 18 16 51	SPT-EVA	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-EVA	And in left/right, we're - at just about - just about centered - looks like 3 and 3.
	CDR-EVA	Here comes New Zealand.
	SPT-EVA	3 and 3, so we're centered pretty well left/right and only slightly off in vertical.
	PLT	Okay, now let me get you - -
	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	SPT-EVA	Thank you, Story.
	PLT	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.
	SPT-EVA	Okay, what am I hitting up against the back ...
	PLT	Okay - -
	CDR-EVA	That's just the boom; you're okay.
363 18 17 53	PLT	Okay, now, Ed, comes another hard thing. We got T020 - S020 cooking.
	SPT-EVA	Okay. Go ahead.
	CDR-EVA	You want your feet over here, Ed, or where?
	SPT-EVA	Yes, I want them back; I don't want to be going where I'm going.
	CDR-EVA	Oh, okay.
363 18 18 04	PLT	Okay, now - -
	SPT-EVA	I got it.
	PLT	- - let me read some instructions here again.
	SPT-EVA	Yes.
	CDR-EVA	Hang on just a minute, Bill. We're busy adjusting Ed's position here.
	PLT	Okay. ...
	CDR-EVA	Now, if you roll left, Ed, you got it made.
	SPT-EVA	T025 - looks like I got to rotate this way, Jer.
363 18 18 20	CDR-EVA	Yes, you're in good shape.
	SPT-EVA	All right. Now, out to here. I can probably use this as a -
	CDR-EVA	How's that?

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

CDR-EVA All right. Okay, Bill.

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

CDR-EVA 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-EVA You're so right.

CDR-EVA I'll keep an eye on her.

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-EVA Can you see through the camera, Ed?

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

CDR-EVA Good show.

PLT Great.

SPT-EVA That darn mirror didn't pop on it this time. Just a-tweaking it in, one axis at a time; perturbation-type thing here.

CDR-EVA 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-EVA Okay, let's hear their words on that again, Bill.

PLT Okay, align experiment by turning X and Y knobs until Sun image is located in center of occulting disk. Image will appear red on the edge of the filter and orange in the center. So, as you start bringing the Sun in, you come through some red filter material and then - -