

FROM: ALPHA

TO: MCC-H
 MCC-M
 HSG-M

SHIP'S LOG 30 NOV

Woke up to the good news that maybe we would not have to wrestle with the IMS switchover until after the 4A mission. All onboard agree with the plan to keep things as they are for now. Really no big hit to us--we are logging things by hand and can continue to do this for the 4A gear transfers.

More good news--early entry into the Node to get gear. The troops are happy.

Sergei and Yuri start the workday with the rest of the procedure to charge the fluid loop on the ÊÎÃ -1 thermal system.

Based on the word that we can only send down 5 'middeck locker-equivalents", Shep is in Progress stowing CTB's which can not be accommodated in the Shuttle for return. Discussions with Houston about stowage, gear return, CTB's all morning. We have to finish with Progress by mid afternoon and close it up.

[REDACTED MATERIAL - 10 lines]

Sergei and Yuri spend the afternoon securing gear in Progress, making close-out photos, and testing comm from the ÃÃ in FGB. Sergei's prepping the laser rangefinder for some more testing during undocking.

Shep gets later word that Shuttle will attempt to take down more bags. We're back in the Progress to pull out the CTB's we can get at readily.

We take on a bunch of O2 from Progress on the station--gauge says 785 mm (over C&W limit) for cabin pressure, and ground says PPO2 is now 190mm. Yuri and Sergei close the hatch. Ground runs a pressure check--SM hatch is OK, ground says Progress is also OK. We are wondering if we will see the inside of this Progress again.

Yuri does his EVA check on the velo with instrumentation. Shep on the TVI S. We are appreciating the 2-a-day workout plan. Sometimes we have to bend the workout times, but at least everyone is getting at the bike and the treadmill for 2 sessions each day.

Shep putting together the changes to the Joint Ops book for 4A. Big thanks to the planners for carving out some time to do this. It's the little things that really slow you down--like when you need a hole punch, and can't find one.

Finished the day with a comm pass with ÖÖÏ and Houston. Passed on our best to the STS 97 crew for a good launch so they can get on up here.

-----END OF LOG ENTRY -----

FROM: ALPHA

TO: MCC-H
 MCC-M
 HSG-M

SHIP'S LOG 29 NOV

0723 First comm pass with ÖÖÏ. Discussion with Houston on ÓÊÂ about yesterday's TEPC comm issues. Also made a request for a "volume" estimate of how many CTB equivalents 4A can take home. We are going to take all foam out of the CTB's we want to return and put this material in Progress. Still will be the case that CTB's will likely have to be discarded because we have too much volume to give Shuttle. We are thinking to send as much on Shuttle as possible so that if we get Progress back, we can have max. stowage volume for the 4A-5A period. Logs planning needs to help us stay ahead of this one.

Shep's Execute package on SSC 2 client has all broken "links". Same with "onboard messages" page in the browser.

[REDACTED MATERIAL - 8 lines]

Shep started prepping CTB's for transfer to Shuttle. We are getting 2 each "triple" CTB's stuffed with 8-10 other empty CTB's for return. This in addition to 2 CWC's, and about 6 flat metal food containers will be sent down. Other things we plan on returning include-- film, video cassettes, air sample bottles, FMK samples, TVI S pc cards (that we can't get to work). This all will fit in a "double" CTB. We need ground's OK and suggestions for anything else we should ship home.

Sergei and Yuri do the photo documentation of the FGB nadir docking cone.

Sergei and Yuri change out the dust filters on FGB and SM, and put ÅÄÅ-Ó5 in the Progress. We are still averaging 5 days per tank.

Crew did a "Challenger Center" PAO event on OCA. Help from CAPCOM and PAO was a big factor in making this easy for us. Performance of OCA was good.

Test of the television system for ÑÈ ÌÂ ÎË worked OK. TV image was clearer than on the Progress docking. We are assuming that Progress camera may be warmer and the previous ice or frost is not present.

1330 Sergei and Yuri working in the afternoon to put in the pump unit (3Ñ Ĩ Í) for the second thermal loop. Panels 247 and 248 are off of the SM aft during the installation. Loop #2 Pump package is putting out a pretty good high pitched whine. Loop #1 to be tested tomorrow.

Shep on velo. Warming it up for Sergei. Sergei does an EVA-related check on the velo ergometer. Yuri is helping with data and the medical gear.

Ground inquires whether we can relocate "Reflotron" medical equipment on SM panel 336 for permanent stowage. We are pondering the reason for this request.

Yuri and then Shep on the TVIS. Performance OK. Heart rate watch is a bit erratic--will not read the halter in certain orientations. We are taking the TVIS up to 12-14 km/hour for brief periods. Treadmill handles it without any noticeable problems.

More TV downlink to Moscow for media event. Sony DV cam keeps dropping its video out as we set it up in "standby". This is annoying--might be better just to use the tape and let it record continuously.

Sergei finishes the day with a prep for downlink of IMS delta file. He has also made a full backup of the database in case we lose something.

[REDACTED MATERIAL – 12 Lines]

----- END OF LOG ENTRY -----

FROM: ALPHA

TO: MCC-H
 MCC-M
 HSG-M

SHIP'S LOG 28 NOV

0648 On comm with ÖÓÍ. The usual "how's it going". Pressure check from manometer. The station seems very tight from a pressure integrity standpoint.

0755 OCA downlink for PAO. The crew did short spots for the Army-Navy game on Sat. Voice quality much better on our end than it has been since the flight began. PAO said downlink product had good quality.

0815 Sergei and Yuri working on loading the Progress. Putting soft bags and trash in the vehicle.

Shep starting CSA-CP calibration procedure. Primary unit (#1001) looks OK. Comparison data from backup analyzer does not look good. Several parameters reading "minus" values. Waiting to talk to the ground. Put the backup unit back in the bag and logged primary CSA-CP in MEC. Comments added about calibration difficulties.

Shep on velo, Sergei on TVIS.

Inspected A-D-E separator outlet on N-D-E and found it was dry--performing as expected.

Shep moved TEPC to panel 339 in the aft part of SM to do the TEPC data transfer to the Med computer. The MEC was unable to talk to the TEPC over its RS 232 data line. TEPC had power, MEC looked nominal, and the MEC has previously communicated with the CSA-CP and the polar watch on this port. Retried the serial bus line per procedure about 4-5 more times and stopped. Talked to O-O-I and Houston regarding the details. TEPC powered off and located on SM 428.

Hopefully, this will be an acceptable survey location for the next period of TEPC measurements. We are becoming somewhat constrained as to where we can conveniently put TEPC, as many of the CHECS ports are being used to power SSC's and the printer. We have 2 of the 6 CHECS outlets "free" at the moment.

Yuri checked out the veloergometer telemetry line with the ground.

1450 Ground had the crew hook up cables to check telemetry on connections for the 2nd airconditioning unit N-E-2. Inadvertently, one of the blowers which draws air through the heat exchanger started operating. We heard vibrations and metallic sounds, and then smelled a bit of hot insulation. Ground called that the fan was off. Visual inspection revealed at least one blade sheared off the fan (small axial vanes) and jammed up in the blade housing. Will have to wait until we can take this apart to see more details. We're guessing that something hard went through the blades, but we will have to see the whole unit. The good news is that we show a spare blower onboard, so we have another chance to go fix something.

Right after the blower episode, we had the "Discovery Channel" PAO event. OCA performance was consistently good. Downlink lasted over 20 minutes. When the interviewer asked us if we had had any difficulties on startup of all the station systems, the airconditioning unit gave us some new and interesting things to talk about.

Rest of the afternoon included more gear stowage, and then gym time at about 16:30. TVIS performance good. Velo also.

[REDACTED MATERIAL - 10 lines]

Watched the 2nd CD of "Pulp Fiction" and called it a night.

-----END OF LOG ENTRY -----

FROM: ALPHA

TO: MCC-H
 MCC-M
 HSG-M

SHIP'S LOG 27 NOV

We're re--first comm with TsUP at 0614. Breakfast in the "wardroom"--on our mess table. The crew "turned to" over the weekend and we have a prototype table set up with brackets and clamps to evaluate size and location. All hands agree that the standard table (still on the ground) will not be very serviceable, as it will block access to the SRVK, and will be in the way of the treadmill and the doorway of the starboard cayuta. Our do-it-yourself model is somewhat narrower, shorter and lower. We think our prototype will fit better, and we feel pretty happy that we can leave the other table on the ground. Power tools are out and development activity on the prototype continues as we find time.

0730 First work starts. Yuri is filling the flush water tank for the ACY system by hose and pump from SVO system. Sergei starts installing the BITS memory module in the overhead of SM small diameter. Shep stowing computer gear, disks, CD's and other hardware which was used last week for MEC activation and software changes.

0900 All hands help in changing the inlet hose/filter assembly on ACY. We got 6 new hoses when Progress arrived--this should last us until maybe the third or fourth expedition.

Sergei notices that the Russian PCS laptop has locked up. He tries to reboot, but the Sun application software won't load. Lots of messages on the screen noting data errors. Sergei thinks that it may be the hard drive. He boots up windows to see if the windows partition runs OK--it does. So at least some of the hardware is functional. Troubleshooting starts right away with TsUP. Without this PCS, we don't have a laptop interface to the central post computers.

Yuri on velo.

[REDACTED MATERIAL - 10 lines]

1130 SSC network time updated. SSC File server backup delayed until afternoon for file transfers with the ground. We would like to investigate whether the file server could back

up to a PC card over the network--this would save us a bit of hardware reconfiguration for the server.

Shep on velo then on TVI S. Did the monthly maintenance inspection on TVI S. Rubber "Series Bungee System" looked OK. All 3 crew are using one system--this speeds up the setup times. Would like to recommend that we come up with an easier way to remove the protective fabric "sock" and inspect these tubes. Maybe some kind of velcro to secure the fabric. Began normal exercise session.

Yuri and Sergei continue to load the "bilge" in Progress with leftover SFG boxes, KTO's, EDV's, and other dense items. The large metal containers at the bottom of the cargo compartment are about half full. We should be pretty well packed up in Progress after the workday tomorrow. We plan on returning 20+ CTB's with Shuttle when Endeavour departs. In anticipation of getting Progress back aboard after 4A departure, we would like to send bags with packing foam down with Endeavour. We were thinking about discarding the foam with Progress, but decided not to as this will give us more useful stowage in Progress through January.

1551 Yuri getting ready for velo and Sergei warming up TVI S. Got a master alarm and the red light for "other" (warning) on the caution and warning panel. We were thinking it was a bad time for an alarm with the Russian PCS down. We checked US PCS and saw the alarm source. A DDCU on Z1 looked to be having a 4A-related data configuration problem. Checked with Houston and confirmed no crew action.

Put some more O2 into the station from Progress--5 more mm. Early evening--did an OCA test from the front room in Houston, and comm was good. Well improved over the previous weeks. Houston said the OCA machine had been swapped out. Voice quality much better, even video looked sharper. If OCA can hold that performance, then its' useability to us will be way up.

More on OCA--the move. With the upcoming EVA's and the cable swaps, understand that we will lose the early comm exterior data line to the OCA in the FGB (and capability to drag OCA into SM). Having the OCA right at the central post is most convenient. We can hear the call connect "ring" anywhere in the SM, and this is a big advantage for us. Our ability to pay attention to the OCA will be significantly reduced once the machine is back in FGB or in the Node.

[REDACTED MATERIAL - 10 lines]

-----END OF LOG ENTRY -----

FROM: ALPHA

TO: MCC-H
 MCC-M
 HSG-M

SHIP'S LOG 25 NOV

0640 First comm pass. Some changes to the OCA schedule for the day.

Breakfast and second comm pass. Sergei discusses some problems with the way windows is handling cyrillic fonts.

0858 Smoke sensor #10 in PRK activated for 10-15 seconds. Interesting response on PYS (pulyt ypravleniye signalom) ---sensors 1 thru 9 briefly lit as smoke sensor 10 was active (blinking). Did not expect to see this. System returned to normal status. We would like to ask for some "ground" help to better understand that this is a correct indication. Everything in PRK looks normal.

Shep, then Yuri on TVI S. Sergei on velo.

Sergei and Yuri doing some more stowage.

[REDACTED MATERIAL - 8 lines]

Shep in Progress clearing out brackets and getting ready to bolt containers down. Gear needs to be well secured inside to avoid any disruption of the motion control system during undocking and possible redock later.

Talked to Houston at lunchtime. Still looking for more ideas on getting the printer on the network. After running the steps in OCA message 241 unsuccessfully, Sergei hooked the printer up to the subnet running in the FGB two nights ago and did some more testing. No go on resetting the IP address. So we're up for more suggestions on this one.

More on fonts. Major step forward. Sergei is on the Wiener checking out a CD with the Russian ODF on it and all the new Russian data file symbols can be read by "Word". Someone on the ground has created a file to interpret and display these symbols. We believe this could be added to the Windows environment on the SSC, so all Russian data file could move around the network as word documents vice having to be in the PDF format we are now using. We need to do this also.

Opened Progress O2 tank and increased station pressure about 9 mm.

OCA conference with the STS-97 crew does not hook up. Will try again Sunday.

Sergei on the TVI S. Shep and Yuri on the velo.

Yuri and Sergei set up for regeneration of water from KTB-1. Ground shut down CKB-1 (air conditioner) earlier. We always seem to get an "unexpected shutdown CKB" caution on this. KTB-1 is emptied through the regenerative system in SRVK.

Sergei and then Yuri do the cycle ergometer in the hand mode, for a medical check. 150 watts for 3 minutes--this is hard work. Apparently it's an EVA prep requirement. Data goes to the ground.

End of the workday. Disc 2 of Apocalypse Now. Found "Kurtz" .

-----END OF LOG ENTRY -----

FROM: ALPHA

TO: MCC-H
 MCC-M
 HSG-M

Morning comm session, then urolux, followed by finger sticking and reflotron,

Breakfast and comm with TsUP regarding daily schedule. Discussion that yes, Progress is unloaded but we have a lot of stowage and inventory work left to do.

Shep picks up the acoustic dosimeters and logs the data in notebook.

Sergei and Yuri start going through bags of gear packed in Progress. Still looking for the KTO's we need with stuff in them.

[REDACTED MATERIAL - 24 lines]

Checs and MEC are now 0 for 3 for the morning. Shep looking for Kona coffee and some simple mechanical task that can be readily completed--found it:
Hooked up temp sensor T265 to the SM-PXO air duct, which had to be rigged backwards to make everything fit right, but it works!

Sergei and Yuri still going through items one at a time against the IMS database on the Wiener laptop. Shep working on getting Progress ready for restowing items to be taken off station. TsUP wants to have c.g. low with everything secure for the redocking capability after 4A departure.

Shep on TVI S, Yuri on velo. Ops normal.

Logging acoustic data on MEC. Numbers are roughly 61-63 dB around our sleep locations, 75 in work areas and central post, and 80-85 around the noisiest equipment.

[REDACTED MATERIAL - 4 lines]

1330 Crew changed out EDV no 4. (We're averaging 5 days on these).

1410 Conference with specialists in TsUP about what was loaded in KTO containers in Progress cargo. Still trying to account for stuff in KTO # 4.

1500 OCA comm pass, phone patch with Chief, CB, followed by ham pass over Houston.

Reattempted the Winscat test by logging in as a new user. It worked, and seems to associate Shep with his previous data in database. Ground may want to look at this. Opened the Polar heart rate monitor software again, to try and clean up crew ID's and to see if the exercise dates could be logged automatically. Could not find an easy way to do the logging.

Spent the rest of the afternoon inventorying gear from Progress. We expect to be complete with inventory and storage Sat, although we are still looking for several items which are not located yet. We have got to sort out gear to go into Progress and load it, which should go faster, but will still be a substantial effort. We estimate we need 2 days for this.

Watched disk 1 of "Apocalypse Now". Shep tried to explain why Robert Duvall is always wearing the black cavalry hat, but being a Navy guy, he's not sure he understands it either.

-----END OF LOG ENTRY -----

FROM: ALPHA

TO: MCC-H
MCC-M
HSG-M

SHIP'S LOG 23 NOV

0615 Up and about trying to sort out the medical procedures and gear for periodic crew medical checks. We should have prepped the gear Weds night--didn't. Went to pick individual items out of the med kit-- but should have taken the whole bag into the SM. OCA "weekly" medical message was pretty good in outline of what is happening but Shep is in the habit of reading the form 24 to the last "bykvia" and this slows things way down. For instance, misinterpreted the English letters "st" on the form 24--thinking this meant the Russian word "stranitsa" (page) when it really stood for "step". (Too early in the a.m.)

[REDACTED MATERIAL - 12 lines]

Shep did the exam on Yuri and Sergei, Sergei did Shep. Crew's healthy. Put the data in the MEC. Felt the look and feel of the data entry fields should agree more strongly with what's in the Med Checklist.

Sergei and Yuri grabbing gear from what was bagged in Progress and literally inputting it piece by piece in the Wiener IMS database. Shep is wondering when we're going to one merged IMS so we can use the SSC's and bar code reader to make changes. We are basically OK with the computer interface--searches are reasonably efficient. Moving stuff and logging it has taken a lot of time but we are getting more proficient. We still think we will have to go locker by locker and optimize how gear is placed in each one. Right now things are just put away in logical groupings.

1000 Limited success with OCA--still having config issues somewhere in the link. BME back room comes in clear on the voice uplink--so we think one of the more persistent problems (one-way voice) has to be a ground config issue.

1130 Shep on the TVI S--performance nominal. Hopefully the PC cards have all the TVI S data and we will get that to the ground tomorrow. Some confusion on the TVI S control panel, and how it is decoding the cards--talked about this earlier. TVI S not recognizing Shep's card correctly-- we'll send the data down and let the ground sort it out.

Late morning--SM is in [PCO+P] XPOP orientation, so we have a fairly steady attitude looking out the window. Deck ports are aimed right at Jupiter, with 3 moons visible.

Yuri on the TVI S before lunch, then Sergei on TVI S. He is usually running without the SPD's and it looks fine. Shep and Yuri are using them.

More stowage ops after lunch. Schedule for the day turned out well--thanks to the planners for pulling out the other low priority tasks. Thanks from us for deferring the medical "dry-run" emergency training.

[REDACTED MATERIAL - 2 lines]

1510 Excellent ham radio pass over Houston. Voice quality of ham radio continues to be well above any of our other links.

Shep and Sergei scope out a small task, which was on, form 24--moving a temperature sensor. This was pulled from the worklist today. Looked at the length of wire run, and decided that the sensor would not reach the intended ductwork. Back to the planning shed on that one. Could use the pin-kit wire connectors to make it longer, but standing by for TsUP to say what next.

1600 Shep--family conference on OCA. Again, family ops on OCA from the BME room in Houston go very well. Good voice and audio quality--well above what we see in the front room. Availability of the once-a-week video is a real plus.

1620 Opened up "section 1" of the Progress O2 tanks and put 10mm more pressure in the station.

Everyone got a second "gym" session in starting about 1730.

Shep set up the acoustic dosimeters for another 24 hour monitoring. The dosimeters located over Yuri's bunk on 3rd plane FGB, on SM panel 435 in the "wardroom", and in the overhead of the port cayuta. 9v. battery supply for these guys is becoming limited--we have 1 reload left for the dosimeters. Data will be logged on MEC along with other info requested and sent down tomorrow.

[REDACTED MATERIAL - 3 lines]

Progress now completely unloaded, but we are still stowing a lot of gear. Several small items which are on the Progress shipping documents are unaccounted for, and we are picking through what has already been stowed. We may have the same "KTO" issue as yesterday--we have 2 KTO's which we learn are supposed to have things in them. We have not dug them out, opened them, and gone through what is inside. We're hopeful to find some of the stuff we are looking for.

We feel much better about the general pace of things, and what we got done today. Wednesday was a lot of frustration and lost time running things down that maybe could have been done later. We're happy that the planners are hearing our input and adjusting.

One thing that might prove useful to all--It would be nice to have some way to sort and "find" OCA and radiogram messages in one "combined" (US and Russian) index. We need more than the message number--some better way to organize this where we can dig out title, subject, date, etc. is in order. As we continue to build larger archives of message traffic, we're going to need this real soon.

FROM: ALPHA

TO: MCC-H
MCC-M
HSG-M

SHIP'S LOG 22 NOV

0630 Up and about. First pass with Moscow. Glavny's doing his best to create humor but it's just too early in the morning.

0805 Second pass. We discuss rigging of airflow sensors. We are thinking if we are going to go to the trouble now of rigging the "IP's" as they are called, we would like some confidence that they will work. Don't know that is in the plan, but there should be some simple and safe way to test 'em. Voiced down that we are still having problems with printer. We ask for specialist conference with J. Michel in Houston.

Shep working on getting the MEC on the network. Yuri and Sergei stowing electronic parts. Sergei puts in a compressor for the ACY system, which will be needed for later Progress transfers. Shep spends 2+ hours trying to load the network driver for MEC. Have to unrig a lot of stuff on the server to use PC cards before he realizes he could have probably done this from the comfort of the C.O.'s cabin on SSC 2. MEC comes up on the network (major accomplishment for a Mac-guy) but still some configurations messed up. Waiting to talk to Houston.

[REDACTED MATERIAL - 34 lines]

Checking the gas analyzer with telemetry going to the ground. Some calibration difference in our CO2 readings.

More stowage and inventory ops.

Shep sets up another round of acoustic dosimeters--all three are back up with new batteries. Two are in the SM sleep stations and the third goes on the bulkhead by central post. (we did Yuri's bunk in FGB last week).

Yuri is working on connecting the velo to the telemetry system but the connector is wrong. More discussion with the ground. The impact-driver is out again, taking off the velo-ergometer. We reroute what we think to be the right cable--but we'll wait until tomorrow to see what the ground says.

Some discussion late in the day with TsUP regarding our "progress" with Progress. Even though we are 70% unloaded, a lot is not restowed, and we think it will take 2 full days to finish the unload and get stowage somewhat in order. Then we will still have to gather up what goes back into Progress, when, and in what order. Plus the transfer items for 4A. We try to give the planners our sense of how it's going and estimates of time required.

End of the day--everyone in the "gym". We are definitely getting better at setting up the TVIS. We just leave it running now and try and get on it "back to back". Everyone gets in a session on velo as well.

Dinner in the wardroom as usual. Decided not to go for the ham and smoked turkey--saving this for tomorrow.

We did get a moment during the "gym" period to talk to Houston on OCA. It was a good chance for each of us to say a few words about the Thanksgiving holiday. Sergei went right

to the point--highlighting the excellent support we have from the ground teams. To all the folks keeping watch on us--Thanks!

-----END OF LOG ENTRY -----

FROM: ALPHA

TO: MCC-H
 MCC-M
 HSG-M

SHIP'S LOG 20 NOV

0700 First comm pass with TsUP. Discussed printer problem with network comm. Decided to change out printer for 2nd. unit. Changed out printer. Could not get it to talk on the network.

Second comm pass--beeping noise at the central post--can't figure out what it is. It turns out the combustion products analyzer is running out of battery power and is stuck on the bulkhead at the central post.

0805 Try to reload MEC for 30-45 minutes-no joy. Several attempts with different floppies, CD's, and new hard drive--computer is hanging up trying to execute the autoloader software.

0943 First red light on the caution and warning panel. Smoke sensor 1 in PXO active. Sensor tested and reset--no alarm. Sergei paws through some stowage to see what's right by the sensor. PXO looks completely normal. At least the warning tones are noticeable.

1000 Attempted backup of SSC file server (20 minute procedure) Hardware configuration requires saving files and shutting down SSC2 to get at the PC extender. Extender won't go on File Server until hardware is removed, which requires shutting down FS, and removing PC card bracket and ethernet card. More restarts required to get things going. Backup procedure unexpectedly shuts down FS. When restarted, FS comes up but network is down. FS is down again. Sergei helping with the troubleshooting--already spent 2 hours on this and still not working. Something wrong with the power supply? We swap supplies with the router--FS is working. Then the suspect power supply starts working again. We're stumped. The good news is that the network is up. The bad news--we will probably see this again.

1200 Yuri gets on the TVI S. Shep puts new battery in the CSA-CP.

1300 Sergei and Shep hook up second (Lab) printer on the FGB subnet. It works. Right before the net goes down. Some more discussion with TsUP, and we are guessing the network card is bad. We swap cards and the problem is definitely linked to the card. So we are configured with SM printer and Lab network card. Just have to put it on the right subnet now.

1330 Shep on the TVI S and then velo--ops normal.

Tried again to load software on the MEC computer. Hooked up another floppy drive which seems to work better. At least the software runs without the previous read errors. Shep tries the latest CD, which starts OK but then has "critical" problems. After about 4 more attempts to get through this, retry to load with a second CD. This is kind of cranky too, with lots of read errors, but nothing which kills the load. Finally the MEC computer has an update., We check with TsUP for relay to Houston to see if the software version is acceptable.

Sergei and Yuri pulling spare boxes out of Progress and stowing them. We are trying to locate things as close as possible to where they will be used. Still have over half of Progress to deal with and the big stuff is all down low in the module. We may have to take off the docking assembly--but we want to see if we can extract the big pieces without doing that. Large cylinder is the liquid block for electron. We debate how to get it off its frame and whether it will pass through the hatch as is. We decide it's a project for tomorrow.

Sergei on TVI S and the velo.

Comm pass. Some joking with Moscow about the table that we're missing. We don't expect to see it now on our flight, although it is something that would make habitability better in the SM. We do some talking on the second VHF channel. For some reason, VHF channel 2 is much clearer than chan. 1 which is always fuzzy onboard. The best voice quality onboard is the ham radio.

More words from Houston on VHF about OCA dropouts. No one can explain the inconsistent performance. We are looking for something strange which may affect the circuit on station but nothing is readily apparent.

We call it a day and lay into the new load of chow from Progress. CD movie is "LA Confidential". We may have to watch this one several more times.

-----END OF LOG ENTRY -----

FROM: ALPHA

TO: MCC-H
MCC-M

HSG-M

SHIP'S LOG 19 NOV

0900 Crew is up. OCA must have worked overnight, as we have files onboard. Thinking about what to do with all the Progress gear. Reviewing where we got to on Saturday--

On Sat. we got up late afternoon, strapped on the power tools and spare batteries, and "locked and loaded" with the 12mm sockets. Sergei led the way into the top of the Progress. Sergei said the nose of the docking probe "smells like space". It did have kind of a burnt toast odor to it--very faint. Sergei coached Shep to start the unload. Shep started "power tooling", taking fasteners off. Job #1 was to clear out something so the hatch could swing full open. Got down under the docking gear and got Chibis loose, but this was too bulky to get around the hatch so we put it back. Then took the EDV package apart in its frame and started passing EDV's out piece by piece. This works. And soon there is enough room to swing the hatch open and start moving serious equipment. We find the documentation package, and the cargo diagrams in a white bag. Shep is thinking "how did these guys ever get this thing loaded?" All the EDV's, KTO's, out. Pump packages and spares come out. BKO's for SRVK out. Everything strapped to the deck in FGB. First layer of gear in Progress is cleared out, but now we have the large "containers" each with a pile of stuff about 2m deep to deal with. At least we can get at the top of it.

Sergei and Yuri work on putting a pump in the SOTR system rack, just to get it out of the way. We take a break about 2130 for some chow, and to go through the care packages that we found on Progress. The troops are pretty happy that we have all our "loot", and the mail from home is great. Sergei got some excellent kielbassa--we test this right away. Cranked up the laptop and we watch disk 1 of "Sixth Sense". We call it a night at about midnight.

1100 Back to Sunday--Discussion with TsUP. We are kind of interested to know if the work/wardroom table was flown up on the Progress. Does not look like it's onboard. TsUP says they think it's still on the ground. Not a big problem--we were debating for a long time prelaunch whether we had room for all 3 sections anyway. We asked that at least one of the fold out parts not fly to give us more room in the aft part of SM. So now we're thinking how to make something up which will serve in the interim. We joke with TsUP about sending up some plans so we can make a table on orbit. Lots of possibilities in Progress--brackets and frame material everywhere.

Sergei and Yuri are working on the plan to unload Progress--approach is methodical chaos--attack fasteners, unpack a bit, stow a bit. Seems like a good plan. Shep is worried that we will never figure out how to put it all back together and close the hatch, but Sergei says no problem.

Talk with Houston on VHF. We discuss OCA issues. Reboot and diagnostic test proceed without problems. We're thinking about how we are transitioning from mail which was on an OCA file, and then on the SSC server, and now moving to the "outlook" world. We don't think we completely understand what the SSC file server and the individual client machines are doing with respect to each other, handling the outlook files. How we stay sync'd up is the issue. This would probably be transparent to us if the comm link was better, but we are concerned about losing things if they don't happen to get put in the right place onboard.

1300 Shep on TVI S. Normal ops. Yuri gets on the velo.

1500 Sergei gets on TVI S and can't get the belt going. All other indications normal. We try to shut it down and restart. No joy. Another power cycle and still not working. Then Yuri tweaks the emergency stop magnet about 1mm and everything is OK. Another TVI S lesson learned.

1520 OCA family comm. Connection with Houston is about the best we have had so far. Video clear, and voice quality reasonable. If we could just keep OCA working at this level, we would have it made..

1700 Another conversation with TsUP--specialists are discussing how we are tracking all the US equipment as well as Russian gear--whether we are using US "plans" or not.

[REDACTED MATERIAL - 5 lines]

Sergei and Yuri are doing some more inventory. We decide to move the food containers--the used ones have to be staged ready for the Progress departure, and the new ones dug out of the middle of the stowage in Progress. So Shep back in the Progress with tools and Yuri and Sergei are moving gear. We really had the FGB squared away last week and now Sergei and Yuri are in a sea of bags and boxes. After about 2 hours we have the food boxes organized and stowed.

We have one last comm pass with TsUP. Some joking around with Glavni and this is a welcome change to the usual technical and ops comm. We sign off and get some dinner. Finished disk 2 of "Sixth Sense" --nobody liked it. Yuri said he picked it as he thought it was the sequel to "Fifth Element". We let him off easy.

----- END OF LOG ENTRY -----

FROM: ALPHA

TO: MCC-H
 MCC-M
 HSG-M

SHIP'S LOG 17 NOV

0530 First comm pass with TsUP. CO2 up a bit (8mm). We get instructions to start a new CO2 absorber cannister and cycle the VOZDUK. Sergei, Shep, and Yuri break out the Makitas--two subframes have to come out of SM 417 to get the absorber cannister out--its normal fasteners are inaccessible. But it is fairly straightforward to remove the brackets, and we are in the coffee locker by 0630.

0705 Next comm pass with TsUP. Discussed Progress docking comm plan and viewing angles. It would really help here to be able to generate a few snapshots of birds eye view on what station attitudes will look like. We voice this to idea to Houston.Shep, Sergei, Yuri discussing hatch config for docking and location of things we might need.

0900 Shep doing the MEC reload procedure. Floppy disk has some errors on it which the boot software does not like. No-go on the reload procedure, and all the Med Ops downloads for the day get put on hold. More discussion with Houston about a way to get around the bad disk files. We are thinking that this software could be uplinked and we can create the boot disk onboard.

1000 Shep on the TVIS. Discovered that the treadmill can be manually commanded to different speeds "on the fly" by selecting new number for belt speed and pushing enter. This eases the difficulty of manipulating the speed "up/down" arrows and makes changing speed in manual mode much more straightforward. TVIS session OK.

All hands engaged in putting bags away and making space in FGB and SM for staging gear from Progress. Vacuumed the filters in SM.

Sergei and Shep did final routing of the twisted wire pair in FGB for the network. Cable run is completely behind panels except for small stub which goes into the PC card. Exposed network wiring in general is at a minimum, with most of the ethernet in SM run behind panels.

OCA problems continuing through the day. Lots of restarts and power cycles, but no real improvement in the situation. Comm with the ground is very unpredictable.

Crew knocks off at 1400. We're up later in the evening for Progress ops.

2200 Crew is up and about. Going through the radiograms, onboard instructions, etc. getting ready for Progress docking. Cameras and camcorders loaded up.

Have had a fairly "old" state vector onboard for the world map, and we would like to talk to Houston to fix this. With the bad comm, we just can't make it happen. Decide to try and input the SV data from the Russian laptop's nav/details page into the world map. It works! (or seems to). We think we have scored one here. We try the same thing with the Bird's

Eye View and the Russian attitude quaternion--does not look as good. Maybe some of the ADCO's can figure out how to do this.

Progress approach and docking goes pretty much to plan. Yuri gets TV tally of station from Progress camera about 7 km out and Sergei has a visual at 1+ km. TV scan is stable--would have been unusable without Thursday's IFM. In comparison to Shuttle, Progress can maneuver pretty quickly. Progress station keeps directly under us, and then Yuri drives it in slowly for the docking. TV picture is not as defined as we were expecting, and picking up the docking target is quite challenging. Yuri has it lined up inside of about 5 meters. Lighting was OK--target is just real hard to see. Contact at 0347. Very slight bump felt in SM. Surprised at how benign the loads seem. Rest of the mechanical docking gear works as expected. Systems reconfigured and pressure checks out OK. We are opening hatches just before 0600, and into the Progress for a look at 0630. Later, looking at electronic photos Sergei shot of Progress on final approach strongly suggests ice on the glass cover of the camera housing. This may help explain the TV image issues.

More gear to unload and stow, and another opportunity to use power tools.

FROM: ALPHA

TO: MCC-H
 MCC-M
 HSG-M

SHIP'S LOG 16 NOV

Reveille at the usual "zero-dark-early". Talked with TsUP 0630. Added 1 EDV in parallel with the KPV for water collection from SRVK. We want to avoid putting more water in the "technical" buckets. This will provide more volume for the system to pump potable water into. Apparently there is more moisture in the environmental "loop" than estimated.

[REDACTED MATERIAL - 2 lines]

Switched BMP modes--filter cannister 1 in normal ops, #2 in regeneration. No "hot" smell as was experienced when #1 was evacuated and heated.

Sergei and Yuri working on sync problem with the SIMVOL. Previous test image for docking had its video frame distorted. Apparently the sync signal was malfunctioning. Ground discussion about removing sync input from the video signal. Looking for a way to do this. Impact tool is chowing down on fasteners, but cable leads are unable to reach monitor directly from sync box.

Yuri and Sergei continue to clean up inventory notes for the last several days of logistics moves. Shep is picking up a week's worth of nuts and bolts taken off of panels, brackets, parts, etc.

1400 Shep did another test of the Sound Level Meter (SLM). Repeated steps 1-7 in the procedure. SLM failed again. (-7.5 dB calibration delta). Per words from Houston, put it back in the box.

[REDACTED MATERIAL - 13 lines]

Shep stowed additional gear in the medical locker in SM per radiogram 15. Could not find the new labels mentioned in the radiogram for the older "ykladkies". Reflotron left in FGB as we don't feel we have room for it on SM panel 336--it will be in the way of SSC3 which is over the doorway for starboard cayuta. But IMS knows where it is.

1420 Crew talked to TsUP about bypassing the sync box on SIMVOL. Got a "wait out". Spent some time looking thru the "pin kit" for pins and sockets that might work. Everything we had was a bit too big (22 gauge).

Sergei and Yuri continue to do inventory ops, and work the SIMVOL video connection

1700 Sergei and Yuri get a good SIMVOL test after bypassing the sync box. Signal is transmitted from Soyuz. Picture looks solid. Sergei was pretty resourceful, as usual, finding coax parts off other cabling to create a jumper to do the job. From CDR point of view, effort was outstanding.

Just a note here---we will want to add US and Russian bus/coax repair to our list of onboard capabilities. A handful of couplers and a crimp tool could go a long way.

Shep on TVIS---ops nominal until he has to pause for something, then could not get the TVIS to restart. Several attempts to resume did not work. A power cycle brought it back to operation. Have also had continuing problems with the keypad not responding to inputs. Found that pushing harder on the keypad actually makes it work somewhat better.

Sergei on TVIS and Yuri on the velo.

Sergei gets the Wiener to "ping" on the twisted pair network lateafternoon. It can now see the router, server, and subnet in the FGB and SSC clients on the net. The only outstanding unit is the printer. We have about three blinking lights on the back panel of the printer but it's not on the net. We are out of ideas on how to troubleshoot this one and we need some more input from the ground on what to do next.

We have to redo the digital photo of the PTAB #4--checked the image we have and it is too soft. Will redo and send as we have time.

Summary of the day--outstanding work with the SIMVOL "no-notice" IFM. Made good progress on the network, and stowage and inventory settling down a bit. Ready for the Progress to "come aboard". Shep thinks the Navy term is "Romeo at the dip" but Brent Jett may want to check this.

-----END OF LOG ENTRY -----

FROM: ALPHA
TO: MCC-H
MCC-M
HSG-M

SHIP'S LOG 15 NOV

0730 Conducted comm session with TsUP. Sent down 4 min. camcorder recording shot on Tuesday. Hope it's useful. Still troubleshooting OCA problems. Houston requested reboot of OCA which was performed. OCA still running slow although RAM and disk space appears very adequate.

0830 Shep and Sergei got the BCR to take new download of v. 103 software successfully. BCR serial 1003 loaded. Per ODF, second BCR not loaded. Need a call here if both BCR's are to be matched up.

File server backup scheduled for 14 Nov was delayed while we work OCA issues and reorganize files on server. Hope this OK with the SSC group.

[REDACTED MATERIAL – 6 lines]

1050-1130 Shep and Sergei reload OCA from PC hard card. Load runs OK. OCA looks like it is up.

Yuri on TVIS--performance nominal. We are getting better at turning it on and off without procedural missteps. The only thing we really need that we do not have is a way to manually step up the speed on the belt in increments greater than 0.1 km or mph per button click, or let the button scroll if continuously depressed. We are wondering if a software patch could fix this.

Sergei on velo. Shep on velo. No comments other than getting more used to the control panel. Good exercise device--simple and easy to use.

1400 switched BMP filter unit 1 to regeneration mode.

1400 Sergei and Yuri photograph bent pin on electrical socket of PTAB 4 for transmission to ground. Sergei used 180mm lens to minimize distortion. This is something crews should practice in photo class.

1420 Sergei and Yuri resume electrical test of twisted wire pair. Got good electrical connectivity with a separate cable behind medical locker. Apparently there was some previous error in hooking up twisted pair and circuit was not joined to exterior twisted pair connector at all. Circuit checks OK now. Waiting for more words on Thursday to connect up the Wiener. Give us some more interesting things to do with the Scopemeter!

We hope to get some resolution tomorrow on whether the Wiener and the SSC router are going to "carry the mail". In addition, a few big picture words would be most helpful as to how the ground's going to structure files and run up/down data now that we are using the server. We are assuming that everything we will want to access or send to the ground will be in a folder on the server. Just want to make sure we are on the same page.

Sergei and Yuri restowing gear in FGB. Shep cleaning up US ODF stowage and other gear in SM. We are looking pretty shipshape, and hoping that we have correctly logged where everything is. For BME's, Shep did find the RS 232 cable for TEPC--thanks for the identifying info.

Shep on TVIS, Sergei on TVIS. Function is normal. We are now using the control panel fastened to the support tube, port side, which is a very convenient way to stow it once we're done--it just swings back into the passageway to PRK. We are finding running 2 folks back to back on the TVIS helps keep the setup overhead low. Planners--keep up the good work.

Finished the day with a look thru the server for new radiograms, messages, etc.

Crew is in a happy mood now that we better understand the twisted pair problem. Looking forward to bringing the network completely on-line soon.

Big kudos to Sergei Gulakov today for coming to us with phonetic alphabet calls for English commands on the laptop. This will make calls for keystrokes and like things much more precise. If Houston has a standard phonetic list for the cyrillic alphabet we could use a copy onboard so Shep can study.

----- END OF LOG ENTRY -----

FROM: ALPHA

TO: MCC-H
MCC-M
HSG-M

SHIP'S LOG 14 NOV 00

0345 Got SIMVOL going for docking test-- worked ok. SIMVOL time was approx 10 seconds off from GMT shown on station clocks and laptops.

0700 Comm check with TsUP. Packets sent up.

0830 Comm pass. Tried to uplink packets on VHF 2 and transmit a "voice over" for the TV downlink on VHF 1. Lots of bleed through on the audio--it sounded unusable on this end. Tried to narrate the downlink anyway. We spent 1 1/2 hours Monday putting together as a video summary of what we have been doing last week. We did not feel that the end result was that productive.

0930 Comm with Houston. Discussed OCA downlink and PAO details for Weds. Agreed that it would be best if we only downlink 3-4 .avi movie files at a time, with file sizes under 20Mb.

[REDACTED MATERIAL - 6 lines]

1115 Took TEPC data and logged in ODF hard copy. Numbers as follows:

GMT 11:16 / Dose Rate .002 / Total Dose 45.81 / Elapsed time 2643 / Start File 1 / End File 38 / Current file 38 / Dose Equivalent Rate .002 / Total Dose Equivalent 145.67 / Flags "OE"

We are ready to hook up MEC to the lan if we can get some help with IP addresses and client configurations.

Yuri installed "TSENTR" electronic equipment in the medical rack.

1150 Yuri changes out KTO-1. Shep and Sergei helping. Makita impact tool used to demount/mount the KTO cans. Procedure is much faster with power tools. (same comment with EDV's). Probably save 20 minutes over doing this with hand wrenches.

Talked with Houston about moving OCA up/down files on to the file server. All large .avi movie files are now on the server in the "OCA down" folder and off of OCA storage. Sergei brings up the good point that OCA access for downlink may be slowed up by network transfers. We need more discussion with the ground about the organization of

uplink/downlink files on the server to understand how this will be used. Request any advice here.

Another OCA note--accessing the OCA machine peer to peer, we are unable to make the links work between the execute package and the SSC clients. Links do work on the OCA laptop. Don't understand this. Problem has persisted since the network was originally set up.

Sergei swapped hard disks from Russian Laptop #2 to the operating laptop on the central post. It is back in working order. However, we do not have a backup for the Solaris/Unix OS which gave us the problem and we are operating on our only working load. We request that 4A bring at least one complete hard drive as a backup for the Russian laptop.

OCA file transfer problems in the afternoon. Did several reboots, cleaned off large avi files, dismissed unnecessary apps. OCA still appears to be running slow although lots of storage and RAM available. We are thinking to try again Wednesday with ethernet network card turned off, to reduce processing demand on OCA. Will wait for ground OK to do this.

Started to check out the sound level meter (SLM) as per form 24. Got through step 7.3 on the activation procedure when the SLM failed the calibration test. Deviation was minus 7.18 dB. Turned it on anyway and waved the meter around a bit in FGB and SM. Frequency spectrum response looked reasonable and obtained readings in the 62-65 dB range, but don't know what these numbers mean based on failed calibration. Waiting for words from Houston on how to proceed.

Shep tried to complete the "On orbit hearing assessment" per the flight plan. Unable to locate the EarQ software on the MEC. Icon is not present in the CHECS apps folder, and searched the "C" drive for application unsuccessfully. Thought that since the MEC had not been loaded with new disk image, that the necessary software may be only on the new load. Tried to image the MEC. Could not locate the boot floppy disk as called in step 7.3 of the MEC activation and checkout. We need some words on this one, also.

Sergei started procedure from OCA message to update the Bar Code Reader (BCR) software. Using an RS 232 line to SSC 3, He was unable to open a serial com port to talk to the BCR. We think the problem may be with SSC configuration but SSC 3 was imaged at activation along with the other SSC's. Com ports are available on other machines and we do not understand this difference. Will reimage SSC 3 tomorrow and try this again.

In summary, productivity of the day was at best, modest. Limited availability of comm is having a significant impact on the crew's ability to work through minor issues with the ground team's help. We need a little advice here and there to keep the flow of work moving, but we just have not been able to talk enough. We are probably keeping the planners busy as they reschedule what we did'nt finish. We will try to make things work as smoothly as we can.

----- END OF LOG ENTRY -----

FROM: ALPHA
TO: MCC-H
MCC-M
HSG-MOSCOW

SHIP'S LOG 13 NOV 00

0630 Received good packet comm from the ground per radiogram 14.

Noted SM attitude change. Crew would definitely like more "heads up" as regards attitude timelines and maneuvers. Coordinating this with bird's eye view "birdseed" would also be useful.

Shep started to work on organizing video from the past 2 weeks to prepare for PAO events this week. We have 5+ Sony DV cam tapes shot so far. Will attempt to make highlights of these tapings available on OCA downlink as .avi files.

Sergei and Yuri spend most of the a.m. going through notes from Sunday gear restow and clean-up. We still are going to have some issues with things that don't agree in the IMS database which are "legacy" inaccuracies. Sergei and Shep feel pretty strongly that we need to get the Wiener and the SSC file server talking and sharing the same data ASAP so the ground can help us manage this.

Sergei made the first ham radio contacts from station on a pass over Moscow.

1010 Shep cycled on the ergometer and Yuri started a TVIS run. Both exercise sessions were normal.

1055 Shep and Sergei contacted ham station at Goddard. Comm quality of the VHF circuit was excellent. Signal to noise and readability of the ham radio is better than our other comm circuits.

[REDACTED MATERIAL – 11 lines]

We do plan on providing a "made for downlink" tape for the 14 Nov crew status report. This will be a 4 minute recording with scenes summarizing what some of our activities looked like last week. We will voice over commentary on VHF

audio. Please keep in mind that this is shot "back to back" as we are unable to edit.as shot. With the short comm passes, this is the best we can do. Any other ideas from the ground here would be appreciated.

1400 Shep changed out EDV-Y No. 2. We had about 86 ACY cycles on the first EDV and got to a total of 165 on the second.

Sergei and Yuri repack and restow one locker in FGB and continue to check notes with the IMS database on the Wiener laptop. Have not used the barcode reader as yet--waiting for network and database sharing to be resolved.

Still receiving intermittent power level cautions from the SM CEP system. This is apparently designed as an alert to the crew that we are nearing a negative power balance to avoid increasing electrical load if possible.

Shep and Sergei got a TVIS run in the afternoon. No squawks. User interface is still complicated, but we are learning.

Combustion products analyzer is firing off once or twice a day for 2-3 seconds and then returning to normal. The only parameter which looks close to its limit is HCL which has been 0.8. Have been unable to catch it fast enough when it is in alarm to see what values are causing this.

Experienced OCA dropout for late afternoon/early evening. We rebooted several times with no resolution. Houston came up again through VHF and requested another reboot. All uplink, downlink and other status info on OCA/Proshare was appearing normal (green). The reboot brought us back up with Houston.

1845 Good ham radio pass with Houston. Voice quality as before--excellent.

Approx 1930 experienced a "crash" with the Russian PCS laptop. Attempting to reboot the PC gave indication that the Sun OS would not load. Boot s/w can not read root directory correctly. Even Sergei didn't understand this one. Talked with TsUP and decided to wait for specialist advice tomorrow.

We appreciate the attention to detail from TsUP and Houston in making sure we have good targets and plans for the following day before close of business. This is the way it should be. Thanks!

----- END OF LOG ENTRY -----
--

FROM: ALPHA

TO: MCC-H
MCC-M
HSG-MOSCOW

DECK LOG 11 NOV 00

Morning test of the packet comm to Wiener is successful. (Afternoon test of the packet comm has some problems, which we attribute to low line of sight with ground station.)

0730 Sergei and Yuri start checking assembly of the ham radio installation in FGB and making connection to the antenna coax.

Seems that we are still having OCA config problems. Went through a long pass with CAPCOM where we were in some kind of "simplex" mode. Every time Houston audio was available to us, we lost uplink video. Apparently downlink comm was solid and we got a lot of words down.

Sergei and Yuri start reorganizing and doing inventory of stowage in FGB. Shep is working on squaring away the computer software problems from the previous day with SSC 2.

We all spend the remainder of the working day just putting things away and consolidating where possible. We plan on continuing this on Sunday as well. Lots of improvement in the FGB. Yuri's sleeping bag is laid out fore and aft on locker faces on plane 4 of the FGB interior. A large volume in this area is now clear of stowage so he can have some room. (Sergei and Shep are moved into the SM cayutas, on planes 2 and 4.)

1600 went to 6th regime on VOZDUK. Now operating all 3 CO2 absorber beds.

[REDACTED MATERIAL – 10 lines]

Browsing the IMS on Wiener laptop after dinner, noticed that we have 3 installation toolkits stowed in the Node. Also noted that there are spare metric sockets in these kits. If ground can verify, we do not need these items brought up to us on 4A as we had requested by message. We would, however, like to keep the rest of the tool items on the request list.

----- END OF LOG ENTRY -----

FROM: ALPHA

TO: MCC-H
 MCC-M
 HSG MOSCOW

DECK LOG 10 NOV 00 (Late Entry)

0730 Conducted a video conference with TsUP, commemorating their 40th anniversary of space flight control.

830-920 Shep had first exercise period on the velo-ergometer. Very nice set-up as far as stowage and deployment. Felt that the hand/upper body workout was awkward as far as adjusting the load settings. Basically you have to pedal the "generator" with one hand and punch buttons with the other. Velo-ergometer kept starting at max load (250 watts) and adjusting settings with this initial load was very difficult.

Velo-ergometer had a tight fit between one of its support struts and a padeye on the SM deck. We smoothed the fit up with a large flat file. Sergei had the vacuum cleaner at the ready, but we tried the "Don Pettit" gel method to control the filings. We applied a small amount of aloe gel (clear) to the fitting and filed on it for 10 minutes or so. Cleaned up with a napkin. No loose chips, dust or other debris.

Yuri got a run in on the TVI S, ops normal.

Sergei and Yuri began sorting out parts for the cable connections to be made in the FGB GA for the nadir docking port.

1130 Transited through a very unusual aurora field. Started as a faint green cloud on the horizon, which grew stronger as we approached. Aurora filled our viewfield from SM nadir ports as we flew through it. A faint reddish

plasma layer was above the green field and topped out higher than our orbital altitude.

We have been receiving intermittent caution messages on the SM power system--once or twice a day. All indications from the laptop are normal. We believe these are transient data problems as the telemetry system switches formats. No action taken. Relative incidence of alarms in general for SM (and FGB-Node) is surprisingly low. Whatever you ground guys are doing here, let's keep it up!

Keeping an eye on SRVK operation. No more leaks, system is operating normally.

Sergei and Yuri continue to work on the FGB cable connections. Shep is helping out with wiring runs and connector hookups in the GA. Finding the written instructions on cable and connectors very elaborate. This is the sort of thing where a good sketch would greatly help. Some of the English translation misses a bit of the Russian nuance. Russian instruction says look "in the vicinity of hermetic plate" and the English translation was "look on the plate". The connector Shep needs is, in fact on a wire bundle "in the vicinity" of the plate. (lose about 30 minutes sorting this one out). Total work on the job s about 9 man hours. We finish at about 1630.

Sergei is preparing to run on TVI S but we keep getting gyro fault indications. E run the malfunction procedure in the MedOps book and TVI S is back on line. We think our startup sequence was incorrect. Shep runs on TVI S at fairly high SLD load. Performance of the TVI S is OK.

We were configuring SSC 2 to run a CD when it decided to lock up. After repeated attempts to restart, Shep and Sergei went through a long attempt to extract files from the SSC's hard drive before reloading the SSC software. Used the startup disk in the onboard software suite, but could not find a particular file while hunting around with DOS. This would have been much easier with some bootable media (CD-ROM?) that could run Windows. (Or if Shep was not indoctrinated by that "other" operating system). We may need an emergency boot capability again. After 5+ attempts, finally got the hard drive to take an image off the ghost CD. One of the Autoloader floppies went down, but SSC 2 is now running normally. (3+ hours troubleshooting).

Network is still not in the configuration we would like it. We have the Wiener power laptop stand-alone, and the printer configured as a local printer from the OCA machine. Waiting on words from the ground to reconfigure both of these devices so they can run on the LAN.

Sergei finishes the working day for us by transferring digital image files to the OCA for downlink. More coming.

-----END OF LOG ENTRY -----

FROM: ALPHA

TO: MCC-H
MCC-M
HSG-MOSCOW

DECK LOG 09 NOV 00

0800 Located CPA serial no.1001 on SM 338 near air filter. (location change). Operating normally.

Found the TVI S flash cards in AMP Pack. Thanks for the heads up on this one. Would not have located those till EOM on my own.

Ground started SRVK operations 0830 or so, pumping condensate from the airconditioner to the purification unit. About 0910 Sergei noticed a major water bubble on the condensate separator in the SRVK unit. Apparently the pump which pulls from the separator into the rest of the system had not been turned on, so everything started backing up and eventually went out the air outlet from the separator. About 500 ml of condensate on the exterior of the pump package. No apparent problems, but this could have been a bigger issue if the water had gotten into a bank of power distribution boxes right behind the pump. We got our water cleanup quals renewed.

Used the first "D" size drawing to troubleshoot the SRVK at 0915. They were very helpful. Please tell the RTI I's and the drawing crew that they did good work!! Being able to integrate the functional schematic with the panel logic was very efficient. We think the Ground configured system out of order or did not enable some part of an algorithm and NOK pumped a bunch of condensate into separator block 1. It is squared away now and seems to be operating normally. I was going to make some comment to ground that "unauthorized water pumping is not allowed aboard ship" but I did not get it in on the VHF comm loops.

[REDACTED MATERIAL - 21 lines]

Spent some more time on insulating the CKB airconditioning compressor. The relative humidity is up and it was still causing some condensation because of cold flow from the freon lines. We have the thing pretty well wrapped at this point and the condensation is just a few drops here and there where it was 100 ml. blobs before. This should also make the RH go down a bit. Bill for technical work to be sent to Energia.

1500 Found the TEPC and gear and set it up in SM on panel 110, right at the Central Post fwd of VShVT. Spent over an hour on just the rigging alone—but it is in a place where it can live undisturbed for a long while. Could not locate the RS 232 cable which was supposed to be in the kit. Will check the MEC bag to see if it is in there, but if any of the stowage folks know that it has been relocated there this might shorten any search. TEPC has been firing off intermittently, and we are watching the numbers.

We set up ham radio on 4th plane of FGB just forward of PXO. Have not configured the antenna lead yet, but this will be completed Fri. We do have a question as to which computer is supposed to support packet radio? Is it acceptable to use an SSC to do this?

With regard to SSC config, Did a quick continuity check with the grounding leads for the power cables attached to FGB 227, feeding the SSC router and file server in the FGB. Ground to the FGB structure is electrically good. Will change the ground configuration to float with the outlet socket when we get time to do this—probably tomorrow a.m.

Sergei did additional troubleshooting on the Wiener network. Sergei and Yuri successfully connected the Wiener directly to the SSC router and file server bypassing the twisted pair and it pinged OK. So the problem is somewhere in the twisted pair connection. Sergei and Yuri traced down the whole wire run and could not determine any fault inside the pressurized volumes of SM and FGB (this took 3 hrs.) We need a wiring diagram sufficient to do an electrical test if we want to proceed. Also consider we have scopemeter and logic analyzer/labview onboard. However, our recommendation is to forget the twisted pair for now and put the Wiener directly on the FGB subnet. Router can become a spare. We can reconfigure later if desired and troubleshoot the twisted pair wiring at our leisure.

We are out of laptop desks for the SSC's and Wiener. We have 3 and they are all deployed. (Just for background we have 9 laptops deployed and 1 or 2 more that we might want to use.) 2 more desks with bracket hardware would be handy. Until then, we are in a "make our own" mode, and intend to fabricate a substitute desk out of structural discards from Progress or a food container lid. Size of this is just about perfect. Availability of the "Panavise" would be helpful for this activity. Asked TsUP where this was, got some info, and looked in FGB 302, 306, 230,229, no joy. Can we please confirm that this has or has not been been flown?

As the MCC shift changes, our best to the team on the ground for a job well done. It has been an interesting and challenging 10 days--we have all written some space history. Your "Alpha" crew is standing by for the next watch.

----- END OF LOG ENTRY -----