

00:00:00:00

In 1995 I made another voyage to Antarctica to continue with the construction of the new Sane 4 base. I had not gone down the previous year as there was no electrical work to be done while the outer shells of the buildings were erected.

00:00:16:09

Here the SA Agulhas prepares to depart.
Ignore the date and time. They are wrong.

00:00:32:07

The gangplank is hauled up.

00:00:38:00

The funnel.

00:01:13:16

The side thrusters push the ship away from the wharf.

00:01:28:09

The SA Navy had in the meantime acquired the SAS Outeniqua. They were commissioned to help transport the remaining materials to Antarctica as well as assist the Agulhas through the pack ice.

00:01:51:07

Here the Outeniqua is berthed in front of the Agulhas. Being faster, she will leave a few days later, to arrive about the time the Agulhas arrives at the pack ice.

00:02:35:22

Stuck in the pack ice. The engines pushing hard.

00:02:47:21

We moved 80 metres in 12 hours.

00:03:01:24

The Outeniqua has arrived and is breaking the ice ahead of us.

00:03:27:24

Looking down over the bow. The water is very calm, protected by the ice.

00:03:39:17

The ships name reflected in the water.

00:03:51:19

At the ice shelf, the helicopters begin unloading the ships.

00:04:09:00

A view of the bay ice.

00:05:03:14

It is a warm day at -3. Those interested are offloaded onto the bay ice to sightsee.
The planks mark the edge of the safe areas.

00:05:36:20

This is how we were taken off the ship.

00:06:19:24

Some Emperor penguins come to investigate.
They are unafraid and come up close.

00:07:41:16

A storm broke up the bay ice and we sail off to try and find another suitable place.

00:08:05:15

The Captain kindly let us know whenever something of interest was happening. Here we are passing an iceberg recently broken off the ice shelf.

00:08:27:03

Snow on the deck.

00:08:35:18

The weather has cleared and offloading by helicopter proceeds. The helicopters have to fly between the cranes of the Outeniqua to pick up the containers.

00:09:04:20

The helicopter brings back an empty net.

00:09:36:20

After the net is removed, the container is attached and lifted off.

00:10:34:15

We have found another bay with bay ice still remaining and have pushed up onto it.
Some views of the ice shelf. Note the ice under the water.

00:11:07:15

The bay ice.

00:11:49:12

The shadow of the ship's superstructure on the ice shelf.

00:12:10:22

More penguins.

00:12:31:19

The helicopter starts to ferry workers to Vesleskarvet, the site of Sanae 4.

00:12:50:21

The Outeniqua has finished offloading and Starts back to Cape Town.

00:13:24:21

A Caterpillar is dozing a ramp down to the bay ice from the top of the ice shelf.

00:13:47:15

Another storm has broken up the bay ice. Fortunately, the ramp was low enough for the crane to reach, so the vehicles can be offloaded. The ship has pushed its bows up against the shelf just below it.

00:14:07:07

A Caterpillar Challenger tractor is hoisted up. This is a very dangerous operation. The vehicle must be kept close to the crane. If it swings too far out, it could capsize the ship.

00:14:44:04

The weather is too bad to fly us to Vesles. Instead we have to be taken by Cat train. The containers on the sledges are accommodation for the additional 50 workers and would serve for us to travel in..

00:15:07:01

Here a Cat challenger pulls a tracked sledge, bringing some travelling provisions from the Sanae 3 E-base in the background.

00:15:38:05

The Cat train stands ready. The Challengers can do the journey with the train in 18 hours. There is no heating and no windows and no suspension on the sledges.

00:15:52:23

A view behind out the door. It was too cold to leave the door open.. We just curled up in our sleeping bags on the floor and bumped along. By far the worst journey I have ever undertaken.

00:16:22:11

We stop to prepare a meal at the Half Way Caboose. This is a Caravan with a gas stove where Cat train drivers can stop for a meal and take a break.

00:16:43:18

The diesel bunkers for Sanae 4 with a capacity of 400 000 litres.. These were constructed the previous year.

00:16:51:19

The material and container depots

00:17:10:10

The construction base

00:17:26:19

Filling the snow melter at the construction base

00:17:38:24

The kitchen block

00:17:59:00

The sleeping quarters

00:18:09:24

The additional accommodation for the extra workers. As this would only be required for a year, they were not raised on platforms and came to be called the "squatter camp". The green container is a military field hospital.

00:18:45:21

Our cabin

00:18:54:07

The gap between the buildings. This is required to help prevent snow build up. The rope between is to find one's way across in a storm. Here the wind is blowing but not seriously so.

00:19:11:14

The sewerage system in operation. The toilet is done in plastic bags which are then dumped into the steel drum outside and returned to SA. The blue drums with the funnel are the urinals.

00:19:25:00

Christmas dinner. The tables are set in the dining room containers. We usually worked 14-18 hours a day but Christmas and New Year we stopped at lunch time.

00:19:49:17

Jakes, our chef.

00:20:42:07

A pan across the mountain top from the construction base kitchen block ..

00:20:53:09

up past the fuel bunkers,

00:21:06:02

the completed outer shell of A-Block,

00:21:13:07

and down to the construction base sleeping quarters block.

00:21:27:12

The skidoos in the foreground with the base in the background. The floor of B-Block is progressing.

00:21:43:02

Work on B-Block. Note the double wall which will be filled with pink insulation.

00:21:55:18

Material for the service ducts piled up in B-Block entrance.

00:22:08:01

The interior of the lower floor of A-Block. The buildings are 45m long and 15 wide and double storey.

00:22:35:09

The rounded aerodynamic edges of the building meant a waste of space inside. These spaces were used for the service ducts. Here, electrical busbar trunking is installed so that power can be tapped off at any place along the length.

00:23:02:11

Electrical distribution boards for standby-power and uninterruptible power in the science lab.

00:23:12:13

A view out the window of the mountains to the South, Lorenzenpiggen, the nearby peak and Grunhogna, the low mountain in the foreground. There is a small summer base at Grunhogna.

00:23:25:04

A view of the construction base out the window of A-Block

00:23:41:16

A telephone cable.

00:24:07:01

A part of A-Block used as our site office.
Our drawings and specifications.

00:24:24:04

The upper floor of A-Block

00:24:52:05

The crane working outside the window.

00:25:06:24

The roof panels of B-Block being jacked into position and bolted in place.

00:25:28:03

B-Block with outer wall panels

00:25:35:13

An ice pillar. A vertical rainbow.

00:25:42:21

On the roof of A-Block

00:26:01:19

The interconnecting link to B-Block

00:26:14:15

The entrance staircase. Entrances are provided at each link.

00:26:30:18

Taking a rest in the sun.

00:26:39:14

The gaps between the roof panels had to be sealed with Silicone sealant.

00:26:54:05

The crane at work.

00:27:18:19

An empty cat train zigzags down the slope to prevent the sledges from bumping into each other.

00:27:30:04

A snowman

00:27:33:12

B-Block outer shell almost complete.

00:27:45:13

A ride to work in the morning on the new type of personnel sled.

00:28:31:02

The white container is the protection for the satellite dish.

00:28:44:02

The container on the sledge is the temporary radio room.

00:29:23:09

One can see the construction of the personnel sled. Much more comfortable

00:29:40:18

More workers arrive at the site.

00:29:45:21

Pink insulation still to be cut out of the window holes.

00:30:08:17

Inside the A-B link. As well as a passage between the 2 buildings. The links will have a double entrance like an air lock to keep the cold out. There will also be a place to hang one's outdoor clothing to dry

00:30:30:03

B-Block with the upper deck not yet closed.

00:31:00:02

The windows. These are triple glazed and sealed with nitrogen between the panes, similar to aircraft windows.

00:31:12:04

Because the steel frames are in contact with the outside air, they need to be insulated.

00:31:34:19

The construction crew consisted mainly of electrical and mechanical workers because they could also do building work, whereas not the other way around. Here Mike Murphy, the electrical team leader studies the internal wall panel layout.

00:31:54:13

The size of one of the bedrooms for the overwintering team.

00:32:14:16

With some of the internal walls up, the passage and rooms take shape.

00:32:20:17

The carpenter cuts the door frames to size.

00:33:50:13

The stair well will come up here.

00:34:00:06

With doorways installed but not all the panels there were some humorous incidents like this.

00:34:14:21

We all, worked, project leader, supervisors, and all.

00:34:37:00

A strong wind blows the snow up the slope.

00:34:53:06

Behind the construction base.

00:35:18:17

A heat exchanger unit. The pipes bring hot water from the engines' coolant and exhausts. The heated air is distributed in the air conditioning ducts.

00:35:36:11

A fire damper. This is triggered by the fire alarm system to shut off the air in the event of a fire.

00:35:54:01

The vertical service duct between floors, with cable trays.

00:36:04:09

The construction base covered after a storm.

00:36:27:03

A Cat is stuck after trying to clear the snow build up. It is being pulled out by another Cat, but the cable snaps.

The storm is not completely over yet.

00:37:05:19

It is close to a sunset.

00:37:13:11

The mouth of the snow melter. It takes about 12 litres of snow to make 1 litre of water, so once full, it has to melt down before any more can be got into it. It feels like filling a bottomless pit. A Cat pushes up a pile of snow to help.

00:37:30:11

The control panel and tank

00:37:54:09

This is the pipeline to the building.

00:38:14:16

This mast is temporary for communication to the E-base and ship.

00:38:27:24

Icicles below the showers.

00:38:36:17

The laundry. We got to wash our clothes about once a month on our turn for skivvy duty. We also had to feed the snow melter and clean the construction base. If properly planned, one could have most of the day off.

00:38:57:09

The generator room in the construction base. Another set was added at the back to supply the squatter camp.

00:39:18:04

The showers and wash hand basins. There was basically no cold water, the cold water was kept warm

by the necessary heater taped pipes. We got scorched.

00:39:58:08

The pump and reservoir maintained the water pressure for the showers.

00:40:20:12

One of the dining rooms.

00:40:46:07

The chef

00:40:58:03

The take over doctor assists the chef.

00:41:12:11

The other dining room.

00:41:16:15

A pulpit for church services.

00:41:23:16

A post box. Letters were sent by fax from the temporary radio room next to the satellite dish.

00:41:46:04

The TV is for video tapes only. There was no TV reception.

00:41:56:15

Our cabin

Admin and red tape, even in Antarctica.

00:42:12:12

The printer. The notebook computer did not withstand the cold and we reverted to the desktop type the following year.

00:42:36:04

The urinals. These had to be used in all weather conditions.

00:42:59:09

The toilet system.

Black plastic bags are taken here from the supply.

00:43:14:07

There was a lady visitor the previous year and several the following year.

00:43:22:04

The plastic bag is hooked onto the 4 nails. the seat is put down and the toilet used.

The plastic bag then is taken off and placed in the drum outside.

The drum under the seat with plastic bag is a backup in case of accidents.

00:43:40:07

Another trip around the mountain to the wind scoop.

00:44:00:10

The satellite dish container and temporary mast can just be seen above the edge of the cliff.

00:44:33:15

The wind scoop. Note the frozen lake. The sun melts the snow on the cliffs and it runs down into the hollow and freezes..

00:45:08:11

A skidoo of workers coming down to the construction base for supper.

00:46:04:10

The base from the northern lobe of the mountain.

00:46:23:11

Panning from West to North.

00:46:45:21

It is getting close to a sunset.

00:47:00:01

The moon over the squatter camp.

The Sanae 3 base had been closed this year, so there was no hospital. The field hospital was to fulfil this purpose.

00:47:29:01

A storm is brewing, as seen out of a windows in A Block.

00:47:50:20

One day there was a threatening sky.. Preparations were made for a heavy storm. Nothing happened!

00:48:20:17

Sunset at the wind scoop

This only lasts briefly at this time and rises again after a few minutes. The dark period lasts longer each day.

00:49:36:23

We are back at the ice shelf loading the things to go back on the ship.

00:50:15:03

The Outeniqua's boat returns after a meeting on the Agulhas.

00:50:38:23

Some very heavy weather on the trip back.

00:51:39:17

Walking down the passages is "interesting"

00:51:58:21

So is eating In the dining room.

00:52:58:07

Church service on the ship.

The choir. On the left Vernon Rinquest, one of the electricians and on the right one of the ship's crew.

00:53:32:16

The sea has gone down sufficiently to be allowed out. Some seascapes.

00:54:02:08

Some waves still occasionally splash over the bow.

The yellow object is one of the Russian vehicles being brought back for repairs.

00:54:41:13

Once within 100 nautical miles of Cape Town, the helicopters make ready to return home.

00:55:57:14

We arrive early the next morning.

00:56:15:13

Some seals in the bay.

00:56:29:07

Our berth was still occupied, so we had to wait out in the roadstead most of the morning.

00:57:01:11

The pilot arrives

00:57:41:20

This is all that remains of the old RSA that used to do the trip to Antarctica before the Agulhas.

00:57:56:11

Back at the wharf.

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C