Antarctica Total Solar Eclipse Trip Report: By Bob Shambora

Bob Shambora

03:00:00 CST Monday, November 17, 2003

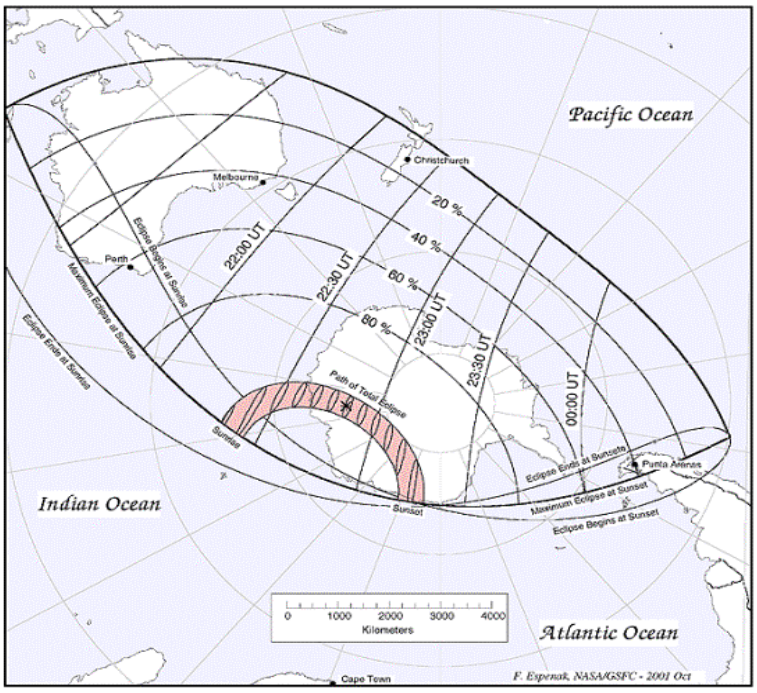
I wake, having packed until 1am (and having slept 2 hours), to dress and leave for the airport.As my wife Wendy kindly drives, the reality of this trip begins to settle in.On November 3rd, 1994, I saw my first Total Solar Eclipse on the Alto Plano in Bolivia.Becoming instantly addicted to this amazing phenomenon, I realized before the trip was over that over the next 10 years I would travel to India, Mongolia, Aruba, Turkey, Zambia, South Africa..and in 2003, Antarctica.

Looking further into the future than 2003, it was obvious that Antarctica would be, logistically, the single most difficult eclipse trip in my lifetime.

For starters, it is basically on the wrong side of the continent.Most people who visit Antarctica today, visit the Antarctic Peninsula, some of which is outside of the Antarctic circle.Our most practical sight, fully 1/3 clockwise around the bottom of the globe, would be Novolazarevskaya, a Russian research station.In the following diagram, the bottom right edge of the pink arch covers the Novolazarevskaya station (Novo).The pink arch represents the path of Totality.

Figure 2 - Stereographic Projection

Total Solar Eclipse - 2003 Nov 23



The Novo station, and the Indian Maitri station nearby, are in the area of Dronning Maud Land (or Queen Maud Land), named by Roald Amundsen in 1939, in honor of Queen Maud of Norway.Amundsen's name is revered to this day at the Amundsen-Scott Station at the South Pole.Queen Maud Land is an

extraordinary dry and inhospitable place. Annually, the precipitation is between 3cm and 4cm, making it dryer that the Sahara Desert!

For nine years I have been aware of the difficulty of this trip.Amazingly, there will be three ways to get there, but ONLY THREE.Several trips have already been coordinated and cancelled.What remains to my knowledge are: 1) A Fly-Over trip, where people will charter an aircraft, boarding from Perth, Australia or Chile.They will attempt to fly into the path of totality, and return back safely without landing on the continent. 2) The Klebnikov, a Russian ice-breaker, will leave Port Elizabeth, South Africa and sail south to Antarctica.They will then veer East, and intersect with the Path Of Totality (see bottom left portion of pink arch above).Afterwards, they will continue on to Hobart, Tazmania, disembark and fly home.This trip lasts 28 days!3) Our trip will involve flying down and LANDING at the airstrip near the Novo station.We will fly into Cape Town, and be on call to leave on a Russian Ilyushin-76 Cargo Jet.We will leave Cape Town for a 6 ½ hour flight (4100km) to the 3 mile long ice airstrip near Novo.

I think about all of the logistics as I start my 19 hours of flying time to get to Cape Town (28 hours with layovers).

Early AM (Which Time Zone?), Tuesday November 18, 2003

I'm reading up on Antarctica more.The White Continent has always been a fairly brutal place.Just read the adventures of Shackleton!The Indian station, Maitri, (the Hindu word for friend), has been destroyed and rebuilt over a dozen times.Mostly, the ice shelf would change, and the base would just SINK!

Other than the temperature and dryness, one always has to be careful of Crevasses.These occur where the ice shelf cracks open.Snow blows over and hides these, then an unsuspecting tramper finds one, slipping as far as a mile down a tight channel between the ice, almost always to their death.(MENTAL NOTE: AVOID CREVASSES!)

15:00:00 GMT, (5pm in Cape Town) Tuesday, November 18, 2003

With the obvious jet-lag, everyone meets their new travel partners.Ijoin a group of six for dinner at the Green Dolphin for some Kudu (wild game, like a dear) and some jazz.I had a great conversation with Geoff Carr, a writer for the Economist, and we discussed the future of the global economies and the effects of India and China.Later we met for a night cap and met up with Richard Cohen, another Brit, who just finished a book about the history of Sword Play.Richard was an Olympic Fencer, and was on the British team in 1980, when they unfortunately boycotted the Olympics in protest of the Soviet Union.He announces to a few of us that he has acquired four swords and intends to hold the First Antarctic Fencing Competition!Richard, Geoff, a nice young lady named Carol, and myself will receive a few fencing lessons, and conduct a SAFE match!I NEVER THOUGHT I'D HAVE TO GO TO ANTARCTICA TO GET FENCING LESSONS!

16:00:00 GMT Wednesday, November 19, 2003

We visit Table Mountain during the day, and by chance I sit next to David and Wendee Levy.Dr. Levy is the co-discoverer of the Shoemaker-Levy Comet.

This comet, in 1994, shocked astronomers worldwide by crashing into Jupiter with unbelievable force.This helped paved the way for our awareness of the effects of Comets and Near Earth Objects, and movies such as Armageddon, Deep Impact, etc., came into vogue.

At 6pm, local time, we have our first briefing, along with a safety meeting in regards to Antarctica.It is at this meeting we have our first of many surprises.

Antarctica only has 1260 permanent residents.The whole continent pretty much shuts down between late February and late November.Since this eclipse takes place on November 23rd, the team that is down there now has had to start opening the base a couple weeks earlier than usual.Our return flight fuel for the Ilyushin-76 Cargo Jet, was actually shipped down to Novo in February.This fuel had to be down before, otherwise the plane doesn't have enough fuel to fly back.One may remember the news last February of the Magdalena Olendorff, the Russian Ice-breaker/supply ship that got stuck in the ice.It was this ship that had JUST dropped off our fuel. The whole crew had to be rescued and airlifted from South Africa.

After a nice dinner, most of us go back to our rooms to try and figure out how to recreate our entire plan, as much of our equipment will no longer be feasible to bring down.We have two days to figure it out.

16:00:00 GMT Thursday, November 20, 2003

Today, the tour went to visit Cape Horn, and a penguin colony.It is very neat, but I have already seen these last December.Being presented with an entirely new plan for equipment, I elected to stay behind and shop for a couple tripod extensions, so that I could reduce my camera equipment weight by 70%.

We have our 6pm briefing again.The weather is holding at Novo; so far so good.

A problem occurs:There is some doubt being expressed by a couple members of our group regarding the observation site.The observation site is actually 10km away from the Novo station.Because of a mountain range and the angle of the landscape around Novo, neither Novo nor the landing strip will be good sites to view the eclipse.The sun, which is now up all day, moves retrograde, back from West to East, instead of setting.In doing so, the sun is only a degree and a half above the horizon (To get an idea, hold your pinky finger out at arms length and turn it sideways).

The doubt rising involves math and trajectories being run over and over in relation to the apparent horizon.Our colleague at Novo looked out last night (Nov. 19) at the rough time of the eclipse, and the sun was NOT ABOVE THE HORIZON!As drastic as this sounds, it means we may be off by a degree or so, but that would still be tragic. We are calculating and recalculating, and we know we are close. But are we close enough???? There is a Japanese contingent with us, and our calculations show they are looking at a mountain range during the eclipse from the site they have chosen. They are convinced THEY are right and we are wrong. I actually think we are right and that they have forgot to calculate the slope of the topography. They have spent well over $2 Million to get here and pick their site!

So, if their wrong, OUCH. If We're wrong, OUCH. SO?????????

Tonight we made a satellite call to the Novo station to ask our contact to watch the sun again. She is tent-bound, under a severe storm tonight, and no way to check until tomorrow. By that time we will be on the plane ready to leave!! We're going to keep calculating, and watch around 11:30 pm Saturday night (GMT). We should know then whether we'll be ok. If we're not, we have 24 hours to choose another site, create flight plans for the two small planes at the base, recalibrate our longitude and latitude for our viewing site, etc. Right now our viewing site is 10 kilometers from the station - if we are right, it could have to move 50 kilometers from the station, southwest towards the pole. It would be very difficult for the tractors to move our equipment that far, which would mean we may have to draw straws for forty of us (There are 67 of us total) to leave by plane with severely reduced equipment, with the other 27 being forced to stay back at the site and see a dark sky with no sun!

For now, we keep recalculating, reading topological maps, and hoping for the best.

16:00:00 GMT Friday, November 21, 2003

Several of stayed up quite late last night recalculating our position.The main issue is not that we are on the wrong place on the map, but rather a question of topography.If the sun will only be 1 ½ degrees above the horizon, and there is a long slope in front of us that drifts up several hundred meters over the space of a couple kilometers, how much of the 1 ½ degrees does that eat up?We reach several tentative conclusions: 1) The slope does injure us, but we should still see the full disc of the sun above the horizon, 2) Fred Bruenjes had coordinated two maps, and realized one of his maps weren't pointing to true north when made.This had the effect of moving the estimated viewing angle to a point where the sun would be further behind a hill than what it will be in reality.We all start to breath a bit easier.Refraction, the effect of making the sun look like it is larger and higher in the sky, will help us a bit.Because of the dryness of Queen Maud Land, the particles in the atmosphere are fewer, but we'll take anything we can get.

We meet for our 6pm briefing.The plan is that we will get an all-clear, a second all-clear at 9pm, and expected departure for the airport within 30 minutes following, for at 01:00 flight time.

Serious Problem:Our flight out tonight is scrubbed.We have heard from the Novo station and the weather is now dire.The bad weather from the previous night has escalated into a very serious storm.At present, the Novo station is experiencing 80km/hr winds, snow, and a temperature of -28 degrees C

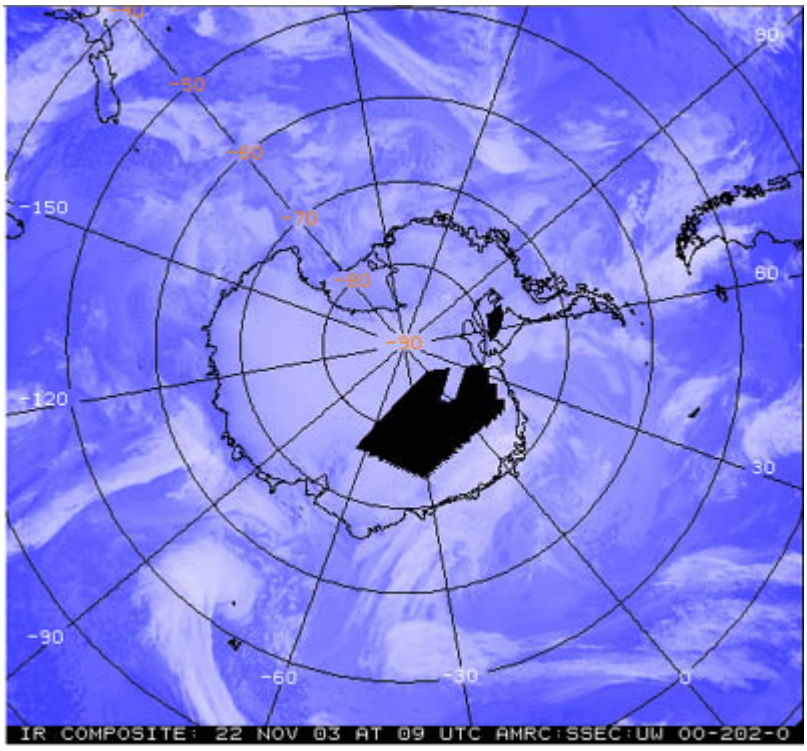
(This is -18 degrees Fahrenheit).The personnel have been ordered to stay in their tents, and cannot even travel to the mess tent, which is 50 meters away.

Worse yet, it appears there is another storm front about 48 hours behind this one that is shaping up to be worse than this one.Additionally, it is has been discovered that the observation site (which we have been so concerned over) has been completely destroyed.The water closets, wind breaks and site amenities have disappeared (that's right the toilets blew away!).

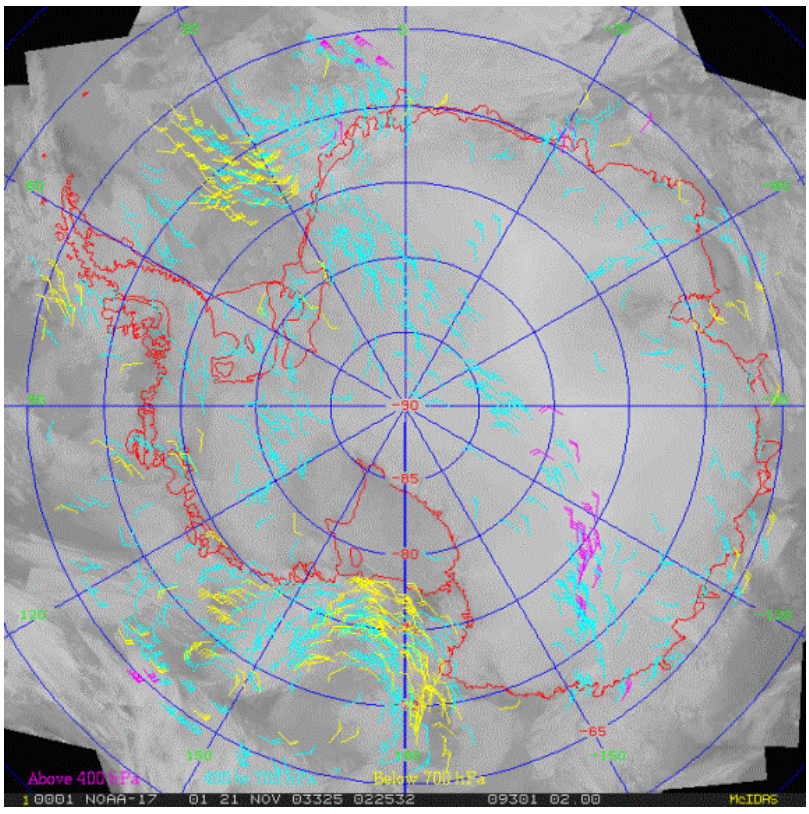
The room, which is full attendance, is sighing heavily. Our only hope rests in some weather data, which shows a clear spot BETWEEN the two storms.There may be a window between 18 and 30 hours long in which we could land, see the eclipse, and safely leave ahead of the next storm.

More sad news:It looks like the second storm is going to be right on top of our friends on the Klebnikov at the time of the eclipse.The storm system is wide, and their outlook for seeing the eclipse at their planned intercept point is about zero. Additionally, in a round-bottom icebreaker, they will be in for one hell of a ride.In weather like this, it is also likely the planes attempting to perform the over-flight will be grounded.

In the picture below, we are near the coastline at 0 degrees longitude (which is at the five o'clock position).The black area is a blind spot by the satellite.



The next picture shows wind speeds and directions.We are at the 11:30 position here.Notice the storm at he 7:00 position, which is the one that is about two days behind the one at the top.Generally, systems circulate in a clockwise pattern around the pole.



Our entire group is feeling somewhat morose, and we head out for dinner, then join up again later at the bar downstairs.The discussion is hopeful, but tense.We now have NO buffer of time.The eclipse is now 48 hours away, and we have no hope of leaving for 24 hours.If this window between storms doesn't close up, do we have enough time to set up?One idea is posed that this would be our opportunity to look at a site further south, since the first one is destroyed.Obviously we can't go too far away from the Novo station.Another creative idea:The water closets on the Ilyushin are removable; they could be pulled by sled along with a generator and other supplies to the new proposed site.We contact the base and propose the idea. It sounds promising, but they absolutely will not entertain a site further off until it has been examined, since the area between the Novo station and either observation point is replete with crevasses.Obviously, no one is going out tonight to look.Since we are at a ground stop, there can be no news until 6pm tomorrow.

10:00:00 GMT Saturday, November 22, 2003

It is about noon local time. A last minute tour was kindly arranged on our extra day in cape town.Many stay behind (with the knowledge that we are about 36 hours away from First Contact).However, a wonderful diversion:It is England vs. Australia for the World Championship Rugby match.The pub downstairs is full, and I welcome the diversion with a couple Guinesses.England wins by scoring with no time left on the clock at the end of two over-times to win!

Everyone continues looking for ways to kill time before 6pm.I can assure you I have a knot in my stomach.Through all of this discussion, we are realizing something profound.Nobody was assuming this, but after extensive research over the past few days, we are realizing that there have been no easily viewable eclipses from Antarctica since anyone has been down there.Therefore?It seems likely that **we will be the first human beings to watch a total solar eclipse from Antarctica in history!**Although we are hoping for the best for our friends in the air and on the Klebnikov, our group may have the only (to be sure the best) chance to make history.

14:00:00 GMT Saturday, November 22, 2003

Bad News: The storm has escalated further, and the base is now experiencing wind speeds in excess of 120km/hr.We are still at a ground stop.Several of the tents at the main camp are down as well.

Good News:Because of the wind speed, this is indicative that the storm will be past sooner.We have a flight time filed for 12 noon, Cape Town time. If we arelucky, we may be able to leave sooner.We are told to be ready at a twenty-minute notice by 4am tomorrow.

We all quickly figure out how close we are cutting this, and there is now no further room for delays.If we leave at noon, that is 10am GMT, which places us at Novolazarevskaya at 4pm.That gives us 6 hours to make camp, travel to a site (not sure where yet), and set up equipment.

Although we are elated, we are feeling for our friends on the Klebnikov.A couple hours ago we received a satellite phone call from our friend Olivier Staiger.

He was up on the deck, on high seas, yelling through the wind and rain.The weather is awful, many are sick, and they are rerouting the trip.They are moving the ship for its best possible intercept course with the path of totality.The garbled message was that they didn't have high hopes, but were giving it their best shot.

No word on the group doing the over-flight.

A bunch of us run out to dinner for one more good meal down by the Waterfront.It looks like against odds, we are at least going to take off.The next threshold will be WHEN, and if we get off the ground, the pilot reserves the right to turn around if the weather reports turn.There is a point of no return, at which we haven't enough fuel to get back, and we must land.

We grab a quick night-cap, wish each other cheers, and turn in (although I'm sure who is sleeping).

05:20:00 GMT Sunday, November 23, 2003 (ECLIPSE DAY)

The phone rings.It's Vic Winter.

''Bob it's Vic. Anyone call you yet?"

''No."

''Well then I'm calling you.We're leaving early.See you in the lobby in 20 minutes."

08:53:00 GMT

We have just boarded the Russian Ilyushin aircraft.We are bussed to the end of the airstrip and climb ladders with our full gear to board.

The plane is HUGE! The inside is a retrofitted cargo plane.The front half is for passengers and the back half for cargo.I sit down in the front row, and in front of me are food provisions.WE ARE TAKING OFF!The plane takes the whole airstrip to get airborne because of it's weight.The closest comparison to this plane is the C-130 Transport.It is up to -7 Celsius at Novo, flight time is 6 hours, and we have 13:35 before 1st Contact.TIGHT, BUT DOABLE! The extra hour may turn out to be important!

13:30:00 GMT

We have just crossed the Antarctic Circle, at 66.6 degrees South Latitude.The crew opens Champagne!The sobering thought: **We are now past the point of no return.We're landing no matter what.**Estimated time of arrival: 45 minutes.8:27 left before First Contact.They've also just made an announcement

that since some of the tents are gone, the planned sleeping arrangements are scrapped.Some will be sleeping in the mess tent.Funny, nobody seems to care about that right now.I have to go put my gear on!

14:43:00 GMT

We have all donned our Parkas, Snow pants, and multiple levels of clothing.Additionally we have all been warned to go heavy on the sunscreen.As our plane descends, they show video on a big screen of the current view out the front of the plane.The front bottom quarter of the nose is clear, so the pilots can see what is below them.As we prepare to land, the view is snow, ice and mountains.It really does look like another planet.It is apparent the pilots see the runway, but none of us can see a thing until the last minute.Touchdown..the plane slides forever as we cannot use brakes, but only reverse engines and flaps.

They weren’t kidding about snow blindness.As they opened the main door, anyone who didn't have their sunglasses on was reaching for them.In many ways the landscape was just as I had imagined, but in many other ways completely different.One's depth perception is completely skewed.We were shown a mountain on the horizon that was TWO HUNDRED kilometers away!

After we all take a bunch of pictures of the plane, the landscape, and ourselves, we gather our gear and proceed to the camp.

The devastation of the camp becomes immediately obvious.At first glance, it appears that 30-40% of the camp is GONE.Originally there were two mess tents.

Both of those were gone, and a separate tent was rapidly being make-shifted into the new mess tent.We are informed that the storm only stopped about five hours before (which means we left Cape Town one hour before the storm stopped).Roughly half of the resident tents were leveled, and it quickly became an issue as to where we were all going to stay.Our group of 67 is made up of two groups - the Japanese, and another multinational group, with individuals from The United States, England, Scotland, Canada, Switzerland, France, South Africa, and Botswana.As we are all in the mess tent with our equipment, the multi-national group makes a generous decision - we will let the Japanese group occupy the existing tents, and we will quickly create make-shift housing in one of the biplane hangars.

The biplane hangars have floors that are, literally, ice.The base crew lays plywood down over the floor, and drape insulating blankets from the ceiling and down the walls.More insulating blankets are hung to create two walls at the front to make an entryway.Cots are brought in with thin (VERY THIN) foam to add to the canvas cots.Most of us will now sleep in our snow gear, in the sleeping bags.

The workers at the base are quickly continuing to repair the base as best they can (many of the repair items we just flew in, and are being unloaded from the Ilyushin's cargo hold).The storm had blown many of the windows out of the tents, including the mess tent.We are reminded that in Antarctica, in a storm such as this, if the tents blow down, YOU'RE BASICALLY DEAD.

Most of us continue to hang out it the mess, until finally we are told the hanger is ready.I unload my gear, and just grab the equipment I'll need for the eclipse.

18:00:00 GMT

As part of our trip, many of us have signed up for scenic biplane rides.I am informed my trip is next, and we'll be back by 8:30pm.I beg to decline until tomorrow, as I cannot concentrate on anything other than the eclipse.This is cutting it too close to first contact, and I want to take no chances.

We begin discussing our transportation to the viewing site, which will essentially be reconstructed on the fly once we get there.Some of us agree to take the Tractor to the site, and help set up.Others agree to take the next tractor ride out, an hour and a half later.We quickly realize since the round trip to the site is

about 90 minutes, we cannot all get there in time because of the passenger load on the tractors.The only way to get everyone out in time would mean starting earlier, and leaving people at the site, completely exposed, for several hours before the eclipse.NOT A GOOD IDEA.

Right now, the temperature is about -10 Celsius and falling, as the sun tracks on a curve lower in the sky.The decision is made to have the biplanes fly the last passengers to the site to make up the difference.

20:40:00 GMT

We prepare to leave the base on the first tractor to help prepare the site.I don't believe this is actually called a tractor, although I have heard it referred to as a sled.I asked what the proper name was, and no one really seemed to know.We start our 45-60 minute track out to the site, which is 10 kilometers away.This vehicle, by the way, has been kindly shared by the Indians at the Maitri station.

21:45:00 GMT (About 50 minutes before First contact)

We arrive at our "site". "Site" is in quotations, because we all suspect THIS IS NOT OUR SITE!The horizon seems wrong.Jen Winter starts verbally stating: "This isn't right!" and "Something is wrong."

The Indians from Maitri have parked their own tractor/truck, and are erecting a special telescope mount that is about 15 feet high.After talking with them, they feel the sun, at eclipse, will be very low also, but have decided it is too late to move.Vic and Jen Winter, Fred Bruenjes and I start scanning the horizon, and take in the apparent topography.There are two peaks separated by about 15 degrees, with an elevated horizon between them.By best guess, the sun will be between the peaks (One has to remember that at this point the sun is crawling, right to left, along the horizon).We are minutes away from the sun's lowest point on the horizon before it starts to rise back up.

To determine decisively what we are up against, we need a quick and exact trajectory of the sun, and a very specific bearing.Compasses don't work well here, and are off by as much as 20 degrees, because of all of the earth mass, between us and magnetic North.We need true geographic South.The best way to get this is to start walking while holding a GPS, while the satellites give you your true bearing.Vic Winter and I start walking toward what we believe is roughly South,

holding our GPS's, comparing numbers, and making slight turns until we are on a true South bearing.

While Vic and I walk, Fred Bruenjes whips on his laptop and starts calculating, based on current GPS Longitude and Latitude, how high the sun should be now.

By comparing where the sun "should be", to where it IS, we can then apply that difference to where the sun "should be" during Second Contact (Totality), and calculate how low the sun WILL BE, apparently, at Second Contact.

22:10:00 GMT (25 Minutes before First Contact)

Vic and I return (having avoided Crevasses in the area!), and compare notes with Fred.

Bad News: Roughly one half of the sun's disc is going to be below the apparent horizon.The next 15 to 20 words are best left unwritten.We start scanning the horizon: What are our options?Time is running out.We don't want to walk toward the sun (South); that won't improve our view unless we could reach the crest of the hill.The crest of the hill is 15 kilometers away, with plenty of crevasses between us.Walking East doesn't seem helpful, as our visual angle will place one of the peaks between us and the sun at the time of totality.Jen is convinced the correct site is further West.Vic and I decide to walk a kilometer, quickly and without gear, to the West, and radio back the results.

Too late.The second tractor shows up with the WCs from the Ilyushin, and we hear the first biplane approaching in the distance to drop off the first load of passengers.We need to move West, and NOW!We attempt, again, to get help from the Indians to move.Our contact states he cannot move without permission and the person who can give permission is two kilometers away from us, chasing some idiot who is going to fall into a crevasse if he goes much further.

The first biplane has landed, and we hear the second.Time's up.

22:25:00 GMT (10 Minutes to First Contact)

Under pressure and running out of time, we realize if we move anywhere it will: A) only be the few of us, and B) we're only going as far as we can walk.

The sun is now at it's lowest point in the sky, and has technically set, as it behind a hill on the horizon.

It suddenly dawns on us that there are a few places within visual range on the landscape where the sun is still shining.Most of these places are to the North.

Although your sense of distance is skewed, it seems there is a lit high-ground not much farther than two kilometers away.Is it really only two kilometers?

Our guess is it may buy us a few tenths of a degree of our visual angle of the sun.Being that the sun's disc is less than a degree wide, this could bring us from 50% of the observable disc to 80-100%.

We gaze North and ponder in a panic.

I ask: "Does anyone know if there are crevasses in that direction?"

Jen asks: "Are we sure we can walk that far?It may be further than we think."

The next biplane flight approaches from the Northeast.As it lands, it touches ground IN THE SUNLIGHT, and slides toward us.This tells us that it isn't too far probably a kilometer and a half, and that there are probably no crevasses (the pilots know where they are).

22:30:00 GMT (5 Minutes to First Contact, 53 Minutes to Second Contact)

We holler to the few in our group in vocal range that we are hiking North.

The temperature is noticeably dropping, but I don't have time to look.

22:35:00 GMT (First Contact)

First contact takes place without any fanfare, as the sun's disc is still behind the hill.There is no one to see that first little nibble that the moon takes out of the sun's disc.The temperature is still dropping, and we are all panting as we drag copious kilos of camera crap across the uneven ice.There is snow, then bumpy ice, then drifts, then depressions, and there is simply no way to pull anything on wheels.Fred takes his

backpack and lays it on the ground.He piles everything on it, and fastens a long nylon strap to the handle, creating a makeshift sled.He pulls it over his shoulder and starts dragging it.

The rest of us are not so lucky.I have two backpacks and a separate large tripod mount that I am carrying with a free hand.The cold metal of the mount is now permeating through my glove.

22:50:00 GMT (33 Minutes until Second Contact)

The sun peaks back out from behind the hill.In moments, even this partially eclipsed disc lends a few degrees of warmth and lights a small glow on the ground around us.Without stopping, I stare at the sun directly (not entirely wise, but I don't have time to stop and pull out a filter).Squinting, I can first see the sun's disc in its partial phase about 30-35% I'm thinking.

I pass up Fred momentarily as his bag/sled gets stuck in a drift, and I joke, "I guess I'll save a lot of time without all of those partial-phase shots".

Without saying it, we have all given up on anything except the shooting of Totality itself.

23:02:00 GMT (21 MINUTES TO SECOND CONTACT)

We all look at Vic, and state we are ok right here to set up IF he is up to it.There is a light spot, apparently higher ground, about twenty meters away.

We drag our equipment this last distance, onto the top of this small snowy ridge, now glowing orange.It is visibly darker, the light is now in that penumbral

surreal stage.We look around at the horizon.We are a kilometer and a half from ANYONE.

Vic and Jen Winter, David and Wendee Levy, Fred Bruenjes, Karen Mendenhall and I begin to set up equipment.We have about 20 minutes, although it would normally take most of us about an hour to set up.Several others make their way over to join us. No one speaks and everyone rushes as the last plane flies overhead, bringing in the last eclipse chasers.

 Photo by Vic Winter

23:13:00 GMT (10 Minutes To Second Contact)

Set-up has been very cumbersome.BRUTAL would be a better word.It is bad enough to fumble while you are in a rush it is worse with gloves.

The temperature is still dropping, as is the light.I don't even get the last of my equipment set up, and I start experiencing battery failures. I start pulling one glove off at a time, to better address my set-up.Notice one glove missing below:

 Photo by Vic Winter

23:18:00 GMT (-5 Minutes)

My fingers are freezing, and our lack of progress is approaching the comical.I am out of time, and decide to ditch one camera set up, leaving me with three:

One Camcorder focused tightly on the eclipse, my Nikon D100 focused tightly on the eclipse, and a Nikon 6006 stuck diagonally at the end of my set-up (see right end of bar above) for a vertical wide-angle shot using a 15mm fisheye.The 6006 is placed in hopes of catching any Aurora Austrialus because of all of the recent solar activity (Sun-Spots and Coronal Mass Ejections).

Dr. Levy shouts out "Shadow-Bands!".I look to see the strange convection-like banding (like what you see at the bottom of a swimming pool), except this looks almost like smoke rising from the snow.

Following my schedule, I turn on my Sony Camcorder.I attempt to turn the programming for the exposure from automatic (the default) to manual.The electronics start to respond slowly, and I am quickly forced to abandon my effort.I start recording with auto-exposure, and as I struggle to adjust my focus, the battery begins failing (this is very common in extremely cold weather).I quickly swap batteries and get about 15 seconds of over exposed video before the second battery fails.Two cameras down..two to go.

23:20:00 GMT (-3 Minutes)

Light falling.

Temperature still falling.

The sky in the East darkens quickly as the Umbral Shadow cone approaches.

 Photo by Vic Winter

23:21:00 GMT (-2 Minutes)

''Here comes the Shadow!!!!" someone yells.

I shoot off a couple wide-angle shots with the 6006.

I get one shot off from my D100.It is a very early Pre-Diamond Ring.My D100 battery indicator starts flashing as the temperature takes its toll, but that one shot does manage to capture a bit of corona.I wait for Second Contact, hoping there is enough to get one or two more shots of totality before complete battery failure.

 Photo by Bob Shambora

The Umbral Shadow begins to cross from the East..

 Photo by Vic Winter

23:22:00 GMT (-60 Seconds)

I hear many of us swearing as Cameras are failing across the board.I have had my hands exposed entirely too long and they are throbbing. I can't feel my fingers

at all.As cold as it is, I pull my hood off so as not to deny myself peripheral vision.I shoot a couple more pictures with the 6006.My ears and face begin to freeze.

SECOND CONTACT!!

Only Exultations and Camera's clicking.


Photo by Vic Winter

I shoot whatever I can from my D100 until the battery dies, and capture this shot below.Notice the oblate shape of the sun, and the warbly edge, due to convection on the horizon:

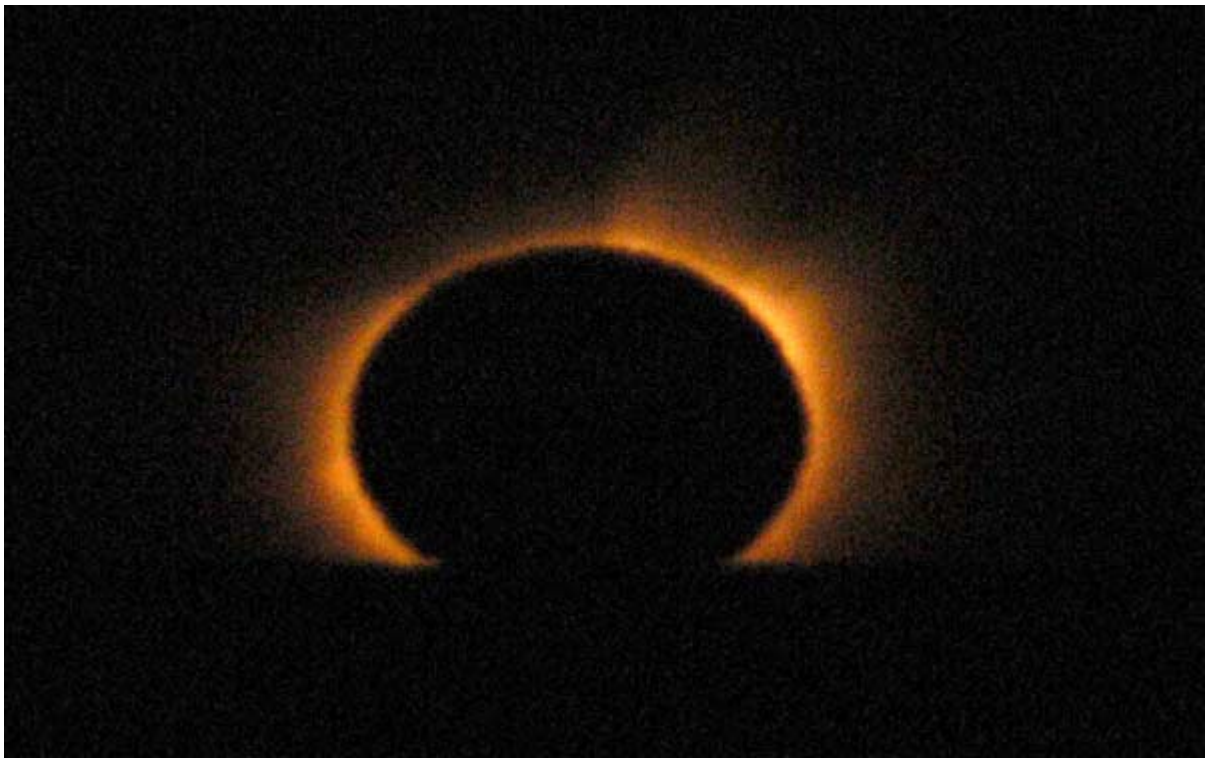


Photo by Bob Shambora

The D100 is dead.Three cameras down.I shoot several more wide-angles and look up.Damn - no Aurora.Not dark enough.I try something that is stupid and unlikely to work. I try to change lenses and move the zoom lens from the D100 to the 6006 to get a diamond ring shot.As I click the zoom lens into place on the 6006, Third Contact.

TOO LATE!

THIRD CONTACT

Beautiful Diamond Ring.The Umbra moves to the West.

 Photo by Vic Winter

Everyone cheers!!

Someone from the Maitri group shoots up a flare.

We all stop photos and watch the colors of the horizon change..

After a few moments, it sinks in that it's over.

WE'VE DONE IT.WE ARE THE FIRST TO STAND ON THE ICE AND SEE A TOTAL SOLAR ECLIPSE FROM ANTARCTICA!!!!!!


Photo by Karen Mendenhall

Many Hugs.Many high-fives.

I finally look at the thermometer: **-22 Celsius!** (about -8 degrees Fahrenheit WITHOUT Wind-chill)

No wonder my fingers hurt!

Around 00:00:00 November 24, 2003

We have packed up (believe me, quickly!).Our hands and fingers are all hurting and most of us have some degree of frost-bite.As we hike back, slowly, we hear Jet-noise!We look up and realize it is one of the fly-overs!Probably Lan-Chile.The plane is flying in a sharp turn, and it is obvious that at least one of the fly-overs made it.

Dr. Levy calls Discover Channel Canada and gives an interview.He gives his comments of the eclipse and reads a poem.

00:07:00 November 24, 2003

The satellite phone rings.It is Olivier from the Klebnikov!They are about 2000 kilometers from us, and totality was 30 minutes before us.They want to know if we have been successful, and our question is the same.We express our successes, and Olivier is happy for us.Unfortunately, they were, for the most part, clouded out.

We feel awful for our friends.We know what extraordinary circumstances they have dealt with, only to come up short. Apparently, they sailed North, and then toward the Mirne station, as far as the ice-breaker could go.This was what they felt was the closest and best chance of clear weather.They stopped and hoped for the best, and came up short.

We hung up the phone with heavy hearts for our friends.As we hiked toward our group, we noted it was after midnight; and for many of us it was the first time we had experienced the midnight sun.

00:30:00 November 24, 2003

We waited around our Tractor/Sled as we visited with friends.I found my friend Geoff Carr, and offered a flask to share some 12yr-old Caol Ila Scotch Whiskey.

“TO THE FIRST!!!

“SLAINJE!.

ANTARCTIC EPILOGUE

We did it.It was THE most amazing adventure so far in my life.

After the eclipse, we danced.

We fenced.

We toured by biplanes.

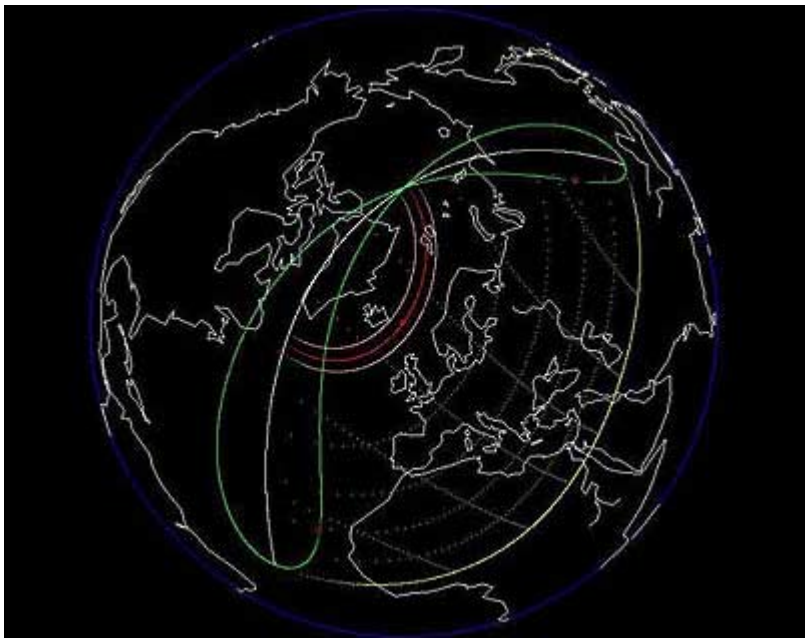
Below, Jim, Woody, Roger, Dr. Levy and Bob 110 Kilometers from Novolazarevskaya.

(or about 66 Miles from nowhere)

and we left (via the "Blue Ice Runway").

Seriously, I have always known that Antarctica would be the most difficult Total Solar Eclipse of my life.

But have we found another challenge?????



Ahah! March 20, 2015.Theoretically, a Total Solar Eclipse sunrise, on the first day of spring (March 20, 2015) at 0 Degrees Longitude, 90 Degrees North Latitude.THE NORTH POLE!!!!

A BUNCH OF US HAVE ALREADY SWORN TO GO!!

THE ADVENTURE CONTINUES!!!!!!!!!