

100 meters/328 feet Limited Variable Ballast

Story by Rudi Castineyra

Photos by Gido Braase



This is a record on which, as a trainer, I had lots of interest. The use of the sled to depths below the 70-80 meter/230-263 feet range for the descent implied a drastic reduction of all vital functions, as the body is acclimating to the fast increase in pressure. Below those depths, the arms and legs rapidly become depleted of blood, all of it shifting more and more into the organs of the thorax. Then, how can the diver start pulling up the rope with the arms or kicking alongside it when both arms and legs are in no condition to even perform the slightest movement? Yet, divers start on their way up and arrive at the surface. Another marvelous show of what a greatly aquatic creature the human being really is!

Furthermore, and technically speaking now, this category favors divers who are tall, with long arms. Since most of the ascent is performed with the use of the arms, it is easy to see that the longer the arms the longer the space of rope covered in each pull and the shorter and easier the ascent becomes. This becomes clear when one sees divers like Pelizzari

or Genoni climb up from these depths. But Yasemin is a minuscule little thing by comparison, only 1.61 meters/5.4 feet, so the task of preparing her body to return from 95 meters seemed impossible at first! Wait a minute, but her record is actually 100 meters, so what happened there? Well, we knew that Deborah had dove to 90 meters in 1997, and although this was not a FREE verified record (FREE didn't even exist back then), we were certain that our goal was to surpass that mark. We then debated by how much we should attempt to break that record: one meter, three, five, ten, what? Yasemin and I are of the opinion that the progression to deeper depths must be controlled and mature, we must never let our egos get in the way of our principles. Thus, we agreed that 95 meters was an ideal depth, since it was not a real drastic jump in depth but it would also show that Yasemin is here to stay and that she has the talent and capacity to go as deep as anybody else. So we planned ourselves for 95 meters/312 feet and the fun began.

The important things with Yas were to get her arms strong, and her chest, back and scapular region flexible enough to allow for strong pulls on that rope. Then the idea hit us that since we were training her for something so particular, why not attempt a record in the Line Assisted Constant Ballast category as well, where the only accepted official dive was Deborah's 60 meters/197 feet set back in 1995, both categories being so similar? So we started training really hard with those goals in mind, and after three months of intensive land preparation, Yas' arms looked as big as mine, and her whole body was conditioned to work under highly anaerobic conditions for long periods of time. Exactly what we needed. And the time came to get in the water and let the fun begin. She was in the best shape I've ever seen her, with an amazing apnea capacity and a body strong and powerful as steel, but this is where it all started changing...

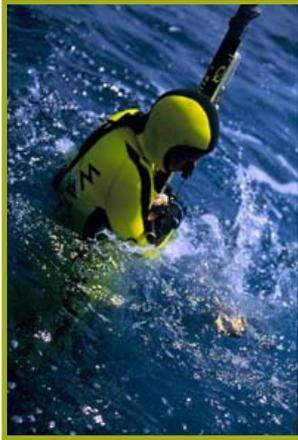
The first dives went very well, and Yas was basically playing with the depths I set for every dive. I even remember a dive to 57 meters/187 feet in Line Assisted where, upon surfacing in a little bit of strong current, she hit her head very badly with one of the steel pipes that frame our platform. The impact was so strong that, even through the cushioning of the hood, I heard the loud sound of head and pipe clashing. And yet, she was fresh and undaunted as if she'd returned from a 15 meter dive! In less than 2 weeks, we were ready to break both records and, at that point, she had already equaled both the depths of 60 meters in Line Assisted and 90 meters in Limited Variable Ballast. So now, all we had to do was wait another 15 days until the announced dates for the official attempts since we were set to televise both records LIVE around the world, and we needed to wait for the appropriate window of time. Which shouldn't be so hard since we should be able to improve her shape, or at least maintain it during that time, right?

Wrong. Little by little her shape began to fade away and her health started deteriorating. Our hotel was a great place, close to our diving operations headquarters and our dive site, but the food in it was voted by our whole team of 23 divers as THE WORST IN THE WORLD. All of us were having serious nutritional problems, the meals being more of a toxin than nourishment to our bodies. But Yas was probably the one who reacted the worst to it, her delicate digestive system unable to cope with it. She was simply incapable of eating any of it, and the lack of energy and muscle-mass loss started being evident. I tried to compensate for this by increasing many of the supplements she was taking on a daily basis, but the reaction to all those synthetic goodies was not much better. On top of that, the "gym" available to us, all five old machines of it, was nowhere near enough to keep her arms and other important muscles in the needed shape. And thus the dive times started becoming longer and longer and the freshness at the end of the ascents was replaced by tired facial expressions. And then she was also coughing and sneezing frequently, and complaining about congested sinuses on several occasions. Right before our eyes, our champion Yas was losing her chance of setting another World Record. We were all worried, disillusioned with the idea of not being able to accomplish what we had worked so hard for. Our team was formed by people from around the world (Germany, England, Italy, USA, France, Cuba, Turkey) who were here because they loved what they do and because they believed in Yas' capabilities. And, in 20 days we had gone from being the most overconfident group in the world to the one with the highest level of stress...



Then the news came that Deborah was getting ready to attempt a record in the Limited Variable Ballast category in Italy, but as usual with her, the depth of the attempt was not clear. We feared that she might try to go for 100 meters, in which case we would have to alter our whole training program drastically, to give Yas the opportunity to get ready for an increase of 7 meters/23 feet as we now assumed our goal to be 102 meters. This is not a small difference at that level. We now had to go much deeper than we had originally planned and our diver's shape was slipping away surely every day. I don't need to tell you how this can increase stress, do I? At this point, the day of her first attempt to 65 meters/213 in Line Assisted came (we always dive to the record depth once before the record) and this day Yas blacked out at about 5 meters/15 feet from the surface. We later learned that the dive had coincided with the beginning of her menstrual cycle, a particularly debilitating experience for her, but even if we wanted to blame it on that, it was obvious that we were in deep trouble. As the person responsible for so many things, the team, the program, all of the technical decisions, etc, I was really only concerned about one thing: her health. Deep inside of me I knew that she could still get the records, she was in such awesome shape that even functioning at 60% capacity as she now was, this should be enough for one final, supreme effort. I knew this and so did she, but we had to be very careful with everything we did from that point on. I was also certain that if we tried to do those two records, the demand on her would be too much, so I knew that the only solution would be that one which would be most painful to her: canceling the Line Assisted attempt. As a true and pure competitor, Yas adored the sled dives and all the fun they represented, but her most proud dives were those on the hardest and more demanding category, Line Assisted. She didn't take it well at all, although she knew that I was right, the important thing now was not to lose everything.

So we started concentrating on the Limited Variable Ballast dives and then made one of our greatest "discoveries". I was trying non-stop to figure out a way of increasing her efficiency on the ascent, since we had agreed to slow down her descent times to allow for easier equalization due to the congested sinuses. But then we would have to make up that difference on the way up somehow, to minimize her dive time/effort as much as possible. The solution was right before our eyes. So many times I had seen her use dolphin kicks during the pool training, and I had always admired the perfect form with which she used such a complex technique. After all, way before she started freediving, Yas had been in the National Monofin team for many years and owned many Turkish records. And there it was! We designed a combination of arm pulls and dolphin kicks, introducing a soft and long kick at



the point where she was to switch from one arm to the other. All of a sudden, she was coming back up again with that fresh, relaxed and smiling face of an athlete not needing to push herself to the limits, yet her ascent rate had improved a whole 30-40 cm/1 foot per second! A couple of days after we started experimenting with this technique, Deborah set her record to 95 meters, and we were now ready to go for 100 meters. The amazing improvement that this technique had brought us was all that we needed to compensate for our problems. The whole team was, once again, comfortable and happy and we all knew that the record was ours. The day after Deborah's dive, we had a scheduled dive to 95 meters, but decided to make it 96 meters instead, and attempt it as an official record. The FREE judges were already there and we all were in need of a good result, something to prove categorically that we were back on track, a reason to do some partying. And our little diver emerged from the water that morning, 2:22 min after she went down, with the 96 meter tag in her hands. Yes, yes, yes, yes, we had it, it was ours!!! Just a few more days and all the sacrifice would pay off...

So, things were looking better for us you might think. Everybody was relieved, our deep divers didn't mind spending those long hours until 12:00 at night blending their Trimix, our camera crew now seemed not to care anymore about the arrangement and preparation of "the cable" (as we all called it) before every dive, a task that took 5-6 hours of careful work, everybody's hopes were flying high again. Yas was feeling better herself, her confidence restored and her passion for freediving carrying her high as a plane. Yet, it was my job and responsibility to look at the situation and analyze it in a logical and even cold way. We still had about 9 more days before the record attempt on July 23rd, and that was still a very LONG time. Anything could happen. Her congestion could develop into a full-blown cold, her health and shape were surely not getting any stronger, she was still weak and exhausted and I didn't wanna make her wait much longer before a dive to 100 meters. 100 meters is, after all, an amazingly deep dive, with the obvious hard and strenuous ascent. I was afraid that Yas would loose too much of her shape if we waited those extra 9 days. It was decision-making time once again...

After lunch that day, I called Yas, Bob and Emmy, our Diving and Safety officers respectively, and told them how I felt. We had still left a spot on the satellite for July 19th, the day when we were originally scheduled to attempt the Line Assisted record, why not use that day for the record and get it over with? Sure, they all said, but what do we do with the extra time? We still have over a week left, what will we do with a team of 24 for the five days between the record and the departure on the 25th? I will give you all a well-deserved vacation I said. Thanks but, listen to this option, if the ears stay equalizing easily, and the congestion doesn't get any worse, why not do another dive, something "easy", not too hard on the body? You know, something where perhaps she can come back riding the liftbag? That extremely hydrodynamic liftbag, the one we built on January when we thought that we would attempt a No Limits record this year? It's not No Limits, Emmy reminds us, it's called Unlimited Variable Ballast according to FREE. Yes you're right, and yes you're right too, that nice liftbag you enjoyed so much playing with. Humm, interesting idea indeed, after all, we have a dive site which should be deep enough, one of the best prepared deep diving teams in the world and tons of Helium and Oxygen left for our mixtures. Humm, sounds good, really. After all, Yas is very experienced with the liftbag, she used it for many dives already, during those pre-record periods on January and April. And, we are reminded again, we already sent all the pertinent documents to FREE for that record five months ago and we never canceled the request, so technically, if the Judges don't mind getting wet one more time, we should be able to do it. Humm, it makes more sense every time, no, really. So, if we do it, what performance do we wanna beat, what do we consider as our reference for depth?

All the "records" out there were not verified by any respectable organization. Tanya's dive to 113 meters/370 feet was done with only observers from



CMAS and FIPS. It is accepted as a regularly carried out dive, mostly because I was Tanya's trainer and organizer of that record as well, so we all go by my word. What about that dive to 125 meters done by Audrey Mestre, Pipin's wife? The dive was verified by the IAFD, which none of us wants to give credit to, having been established in 1997 and recognizing records by Pipin and Audrey on very questionable "categories", without even a set of rules to go by and Public Notaries acting as "Judges". Then, one of our Italian safety divers comes into the room, still yelling into his cellular phone, and gives us the news: Deborah will attempt a dive to 115 meters in that category tomorrow. Bravo Deborah! Having the guts to do a dive shallower than that IAFD "record" is a great sign of maturity and a great thing for the sport. We are not alone after all, great! So we decided to attempt 120 meters/394 feet on the Unlimited category on July 23rd and then the 100 meter dive on the Limited on July 19th. So, where was that liftbag, where did we put it last time we used it?...

The remaining days are pure madness. We have to prepare the whole set-up for another 20 meters of depth, which means a lot more work and preparation, and we still need to keep Yas ready for the Limited attempt, which will require the most out of her, physically and mentally. And with all the things going on, we need to keep her as relaxed as possible, rested for what's coming. I decide that we won't do any more deep dives until the day of the first record attempt. I wanna give her a full three days of rest, do some pool training instead, try to find some restaurants in town where she can perhaps find something that motivates her to eat, give that little body some real rest and



nourishment. I know what the guys, and girls, in the team will say: maybe I am wrong, wouldn't such a long rest take her out of the tempo, the rhythm of the whole thing? It's amazing how they have all become very knowledgeable about freediving, even using the same words that I repeat very often, like tempo, rhythm, anaerobic, etc., etc., etc. I know that once she is sitting on the sled again, her concentration will come back right away, the magic will re-appear, she will be, once again, a fish in the water. So, while I'm thinking about the most polite answers to give the guys and girls on the team, I am actually calculating the expense that it will mean to take all those guys, and girls, out for dinner to a nice place a couple of times. All 24 of them. Ufff, what a hard job being the organizer is.

Our long rest period goes by, agonizingly slow, the sun is baking us again, burning easily at 35-40 degrees (that is about 105 for you Fahrenheit people), and making even the lightest of tasks a debilitating experience. Yas, however, is kicking butt in the pool, her results as strong as ever, her apnea capacity still intact. She can still do a static apnea of 3:00 minutes and immediately after (without breathing) take a relaxed swim of 40-50meters through the pool while carrying lots of water inside her wetsuit, a 3 kilo weightbelt and no fins of course! You don't need fins if you will be using the arms, I say with a devilish smile. It matters not, for our champ is coming out of the water like nothing really happened. I can only dream about the possibilities of this girl, how much farther, or deeper actually, will we able to take these records and push the sport, there are no limits to what she can do really...she is a trainer's dream come true. Just keep her sinuses and ears clear God please, let her equalize a few more times... July 19th comes and with it the attempt to 100 meters, a historic accomplishment for women, Yas being the first one to have reached that important mark if she succeeds. That day everything happens very quickly, and before we have time to notice, the whole routine of waking up, having breakfast and getting ready for the dive has gone by and we are now on the boat, ready to make some history. I wonder how many people in the world know what an important thing we are about to do, what a profound meaning it has for our race the assault on the depths we are mounting, our whole regression to the time, millions of years ago, when we were aquatic creatures. What a phenomenal accomplishment that we are able to withstand such pressures and perform at a level reserved only for the most refined diving mammals. Our little girl can be opening so many interesting doors for us all...

Consumed with these thoughts, I go through the whole preparation ritual mechanically, acting on instinct, and wake up at the time when she is ready to disappear into the abyss. Our divers are gone,

waiting for her somewhere down there, Yas is already into the 5th minute of her breathing. She is looking perfect, undisturbed by any notions of world records or hard-to-reach goals. I correct a few aspects of her breathing technique and before too long the zero mark is here. I am not at all concerned or even excited, I have that strange and inexplicable feeling that tells me that she will succeed without any difficulties. I just know it. Yas takes her last breath and her dive begins, I see camera lights and strobes shining and flashing as she passes by them. All the signals are clearly audible as well, and each one tells me how deep she is, the bottom getting closer every time. Bang, bang, bang, bang, bang, bang, bang, bang... Emmy and Bob are making sure today that Yas knows she has hit bottom, it feels like Poseidon himself is drumming crazily down there. Here comes the ascent, the carefully planned choreography of pulls and kicks, with a strict time allowance for each one of them. I start slowly going down, to meet her for the last section, where she could need my help although I know she won't. Hovering at around 20 meters, I can see her climbing below me, the electric-yellow suit getting bigger and bigger every second. She is looking perfect today. We finish the last meters of the ascent together, looking at each other and celebrating ahead of time, knowing that this incredible record has become ours without much of an effort really. The water turns to air and it is time to breathe now, it has been 2:30 minutes since she took her last breath.

I am so happy, but calmly so, I know there is still a lot more to do and the next record, even if easier for her, is technically more demanding. There is still a lot of work to do, and we both know it. We spend the next two hours accompanying our divers at their decompression stops, talking to each and every one of them, joking and mastering the art of breathing from a regulator, which we both had sort of forgotten. We do several trips to the surface to get some water and sugar cubes for our guys, to keep them hydrated and energized during the boring minutes of deco. Finally, we all come out of the water and start planning our lunch, the thing that definitely gets most of our attention, seemingly disregarding the amazing dive Yas just did. Somehow we all know that we will be together again to see her break her own mark, as it was so apparent that she can dive much deeper than that in this category. We refuse to be impressed, and Yas is the first one to ask me how deep do I REALLY think she can go. I don't know, I really don't, but I intend to find out. For now, let's get to work on this No Limits record, sorry, Unlimited Variable Ballast.



120 meters/394 feet Unlimited Variable Ballast



Four more days to go. Time for some rest and one, maximum two, training dives. I don't wanna push her too much now, knowing that we stand a better chance if we keep her fresh. We take a couple of rest days, and do a few drops to 20-30 meters, so that she can practice the ascent with the liftbag. Only one deep dive will be done as training.

The day before the record is the one we choose for that "routine" dive to 110 meters and, again, we run into trouble. Not Yas, she comes out of the water telling me that she feels she could do at least another 30 meters more today very easily, but that is exactly what the problem is: we have not enough depth!!! We had originally planned to go to 95 meters as our deepest point, and as such, we chose a site which is about 115 meters deep. We can let some rope out and be in a little deeper water, perhaps deep enough depending on where the current and wind are taking us, but at this point we can't remove our 6-ton bottom mooring and take our boat somewhere else, which can't anchor on this soft bottom without the aid of the ballast. Emmy, positioned at the goal depth, says she saw the

bottom from the end of our rope, and that there is no room for 120 meters there. Time to solve this problem instead of agonizing over it, and we decide to use our Zodiacs to pull the boat into deeper water and keep it there if the current does not cooperate with us, hoping that the exhaust fumes from the inflatables won't bother Yas. This seems like the most logical thing, but it still feels strange to be worrying about not having water deep enough for our dive, something that makes us all remember what an extreme endeavor we will be attempting tomorrow. Finally, very late, we all go to bed, hoping to be able to close our eyes for a while...

The morning of July 23rd comes, the sea is calm, everything is ready, our guys have been out there since 6:30 AM working on the boat, giving the last touches. Even those TV people in charge of the LIVE transmission, who always managed to make more mistakes than they really needed to, are looking sharp today. "The cable" is in the water, ready to transport the magic images of our fantastic show to the whole world. Yas and I go through her 45-minute stretch and breathing warm-up on land, and then jump onboard one of our Zodiacs, which will take us to the boat. We are not really excited as we thought we might be. We've followed this routine so many times that it feels like just another dive, even though we know it is not. This is the end of the road, our last dive, so many things come to mind at this point, including how much we're gonna miss this whole thing once it is over. I feel like delaying this final dive a few more days, trying not to let it end, but then I start thinking about what is happening right now and the best way to do things today.

I wanna get her in the water right away, not give her time to realize what an incredibly hard thing she is about to attempt, not let her get nervous, just make it happen quickly. We get to the boat, do our usual round of jokes and exchanges with the divers, go through the torture of getting our custom-fit (read: very tight) suits on, get in the water and start the warm-up dives. While we prepare for the warm-up dives, our two Zodiacs are pulling the boat into the deeper water, turning the motors on as soon as Yas goes underwater and stopping them the second she gets out of the water. Fortunately, the wind is working with us today and the fumes are being blown in the opposite direction and Yas is not being bothered by it. So we decide to keep the Zodiacs running during the last 7 minutes of preparation, to be absolutely sure that our line won't touch the bottom. After the usual two negative pressure dives, we're ready for the big one. Everybody gets in the water, we review the signals for the third time, I wish them all good luck as I always do, turn the sled lights and camera on, and then the countdown begins. 7 minutes! Yas' breathing is looking a bit erratic, she is a bit distracted by all the excitement. 6 minutes, I feel the 20 pairs of eyes of our divers all fixed on me, trying to guess by my expression if she is doing fine or not. I try to look reassuring. I know that once she's done 3-4 cycles her muscles begin to expand more easily, every section filling up, the exhalations making a nice and long sound, everything happening more naturally...Five minutes...divers-go-down signal, I look at their faces and wish them strength with a quiet smile, some of them won't be back on the surface for another 2 hours. The surface starts boiling with so many bubbles...Yas' breathing is looking perfect now, she is in the "zone"...Four minutes...Silently, I give the last instructions to the people on the boat: when do I want them to release the sled, how do I want it released, to keep those TV guys silent inside, it's amazing how developed our sign communications have become...Three minutes...Bob, acting as our reserve diver gives me the Ok signal, which has been relayed diver-to-diver from the bottom, everybody is ready down there...Two minutes...Yas attaches the noseclip tightly around her nose, her breathing is looking great, awesome inhalations, each one about 20 seconds long, amazing exhalations, lasting about 35 seconds, she is ready...One minute...the captain grabs the line that releases the sled, I calm him down with my hands, hoping he won't let her go before time...I give Yas my last instructions and wish her good luck, although I know that the hard work we've put into it is more of a factor than good luck...Zero...she starts her final breath, breathing normally on the abdominal and mid sections, then packing the chest and back until she feels the pressure on her neck, that's our signal, no more than that, her eyes are rolled back, all white in a sign of supreme concentration, she holds the sled, positions her arms and gives me the GO...I drop my arm into the water...the captain pulls the pin, the sled starts sinking...

The sled is dropping quickly today, I start losing her out of my sight soon, our only link the vibration on the rope, which I gently hold to feel her. The line rumbles and vibrates, I can tell exactly where she is, what's happening down there. Time seems to have stopped, silence floats all over the water,

nobody is moving. I feel full of energy, the same energy that Yas must be losing little by little down there, sinking into the progressively colder and darker water, her ears hurting with so much pressure, her head getting dizzy with a touch of Nitrogen Narcosis, her arms numb without any blood...I feel everything she feels, and wanna give her all my energy, send it down the line, help her be a little stronger. I push all my strength out of my body, into the water and down to her, I know she can feel me, we are together the two of us. The vibration on the line is getting weaker and weaker, she is farther and farther from us at the surface...on her incredible trip to 120 meters. Bamm!!!.. the sled has hit the knot at the bottom, she is there! Come on Yas, be strong, keep that head clear and do all the things that you need to do, grab the confirmation tag, release the liftbag, open the air tank and start coming up...come on Yas, we're all waiting for you up here. I start preparing, breathing, getting ready to meet her at 15-20 meters to swim that last part with her, keeping a careful eye on her, monitoring her shape. A cloud of bubbles appears, the yellow form of the liftbag becomes visible on the line, this is it. I swim down to her, my whole body screaming Go Yas! I find the liftbag at 15 meters and then my heart jumps out of my chest, she is not hanging from it, the liftbag is empty! Maybe she let go of it a little earlier, not at 15 meters as she is supposed to. I look around, I look everywhere, but I don't see her. Then I look down, hoping that this last option will work, and there, a very small yellow dot, I see her kicking up. Shit, she must have confused the 45 meter signal with the 15 meter one, it will be a long way up for her today, this girl is gonna kill me of a heart attack one of these days...

I swim down to her. Finally, we meet at around 20 meters and I ask her the usual "are you OK" question. She replies with a big smile on her face and a relaxed, playful kicking style, just a few more meters and we will be there, the moment of truth. Bubbles pass by and the water rushes around our suits, these are the longest seconds ever. I keep my eyes on her, she still looks like nothing much has really happened, she is having a great time...while I'm aging so fast, consumed with so much excitement. The surface is getting closer, the boat is right on top of us, I can see the surface judge waiting for us...here we go! Splash!!!, we break the surface



like rockets, me giving her the instructions to breathe without remembering to breathe myself, Yas following all this procedure while her smile gets bigger and bigger, she knows she has another world record in her hands. The tag is delivered to the judge, Yas starts splashing water, I scream and punch the air, the boat sirens go crazy, people are jumping in the water, everything gets very loud. I give her a hug and realize that, inside my mask, my eyes are full of tears (just a little bit). I move back and look at all the celebration and chaos on the surface, and see our divers preparing for their long decompression on the line down there, waving their arms at us on the surface. I exhale with relief, and then suddenly the fatigue of the last 8 months comes crushing down on my shoulders, but I smile with satisfaction: we have accomplished what we set out to do. Yasemin has become the world champion once again, and the record belongs to all of us. This moment will forever be with us, for we have been the main players in such rare and unique spectacle: a meaningful victory.