Solo Diving… I dive alone all the time… I take photos and I teach others to dive. I rarely dive without others around me, but I often have to be self-sufficient in my dive planning and execution.

This afternoon, we are going to chat about solo diving in the real-world. It happens, we need to understand it.

Solo diving gets a bad rap in some quarters… still. In spite of the hard fact that we have been certifying people to dive “self-sufficiently” for more than eight years with an excellent track record. So is solo diving nuts? We don’t think so at all and in the next several minutes, I will share with you why that is.
What do we mean when we talk about solo diving?

Diving alone… is that diving with nobody else around or is it diving at more than a few feet from a buddy or diving with a “part-time” buddy?

Is it diving with others but being comfortable with your self-rescue skills so that in an emergency, you are equipped and prepared to react independently?

Or is it diving in a group following a leader (perhaps a DM) without any real concept of buddy pairing… typical vacation diving in some areas?
Let’s look at a closer definition.

Photographer’s buddies are usually in the viewfinder… way over there in the distance… Hi Buddy! Can you hear me?

Typical situation we have all seen or experienced. Experienced diver has a spouse, partner, mate who only dives a couple of times a year and usually ONLY WITH THEM. Could that person help if the experienced diver had a problem… probably not… at least not statistically likely enough to rely on them.

Board a dive boat in most spots around the world and a well-meaning DM will couple you up with a “buddy” who you have not previously met and about whom you know nothing. Now you are going to trust them in an emergency?!

Instructors: Well it is considered bad form to ask students for help.

Buddy Separation is the REAL issue and what informs attitudes about solo diving. We agree that this situation is the most dangerous. Two divers neither of whom is prepared to be alone, suddenly out of touch with their support person.
ANY QUESTIONS... THOUGHTS?
Now let us look at the other side of the coin.

People who intend to solo dive

The first type encompasses many options: photographers to very experienced… but they understand the additional risks of diving alone and manage them by being trained and carrying the appropriate gear.

Same for the second group

Ah, but the third. These are the divers who feel that they have earned the right to dive alone, but who have not bothered to think through what they should change about their behavior and kit to prepare themselves to dive alone.

Diving solo is more than simply having a full logbook
Here is a typical SDI Solo Diver. Can any of you tell me what he is carrying that helps mitigate a major risk in diving?

Worth noting here that SDI does NOT SANCTION solo diving in overhead environments (either hard overheads such as caves and wrecks; or the soft overhead of a staged decompression obligation). This is one reason we offer this particular course through our sport diving agency SDI rather than through Technical Diving International… our tech diving sister agency.
Secret Three

Risk Management
- Assessment (identify; isolate)
- Avoid (plan; behavior)
- Mitigate (strategy for unavoidable)
- Learn (debrief honestly; plan to survive)

Successful Solo Diving starts with an honest, structured and detailed risk management exercise.

Three steps:
First list all the things that can go wrong on a dive; highlight those that are specifically harder to deal with alone. Then think through which are the most likely to occur. For example, a heart attack is probably the worst thing that can happen to a solo diver, but if you think it likely, should you be diving or getting in better shape some other way?

Secondly find out how to avoid the likely risks… have a contingency plan, rehearse it, and practice more. If you can reduce the likelihood of a risky event, change what you do and how you do it to make it so.

Some risks are unavoidable and sometimes the worst scenario presents itself… a leaking first stage for example. We can lessen the risk by having gear serviced regularly but the best way to mitigate that risk is to have a redundant gas supply… hence the pony bottle / stage bottle / bailout bottle or buddy bottle in the previous picture.
Here’s a picture of a pretty typical risk mitigation strategy. Redundant bottom mix with SPG and quality regulator. All configured to be worn at the diver’s side… one option.
Diving alone; diving independently perhaps more than any other sport diving exercise requires some adjustments mentally.

Specifically: while every diver WILL benefit from the skills taught and practiced in an SDI Solo Diver course, not every diver can or should dive alone. It takes a special mindset.

How prepared are you really? And how do you feel today?

Are you up to par (or better) with the skills that solo diving requires… bailout, dealing with failed buoyancy, low-vis navigation etc.?

SA… the chess player’s skill. Are you as sharp on game day as you should be?
Solo diving can be a peaceful pursuit. This photo shows a CCR diver exploring a wreck in cold freshwater in the Great Lakes. No bubbles, no noise, just the diver and the wreck. Priceless.
The big change equipment-wise is planning reserve gas… enough gas to get the diver to the surface FOLLOWING STANDARD PROCEDURES!!! Not a mad dash but a controlled ascent coupled with a safety stop and enough gas to make oneself buoyant and make it back to the exit point.

Regulators do malfunction occasionally… and so a redundant first AND second stage is required.

One of the five rules of accident management taught in cave diving and technical diving is to have a continuous line to the surface. For a solo diver, the reassurance of a Surface Marker Buoy deployed from depth with a reel or spool and line is golden. It signals surface support (a boat maybe) where you are and that you are ascending, and if prearranged, can be an alert signal.

Seeing underwater is really important, so backup masks are often carried by solo divers. Just in case, during an SDI course, some drills may be conducted with out a mask or with a blacked out mask. Builds confidence and underlines the practice of carrying a backup!

Depth is relative. The effects of narcosis are attributable to far more than the partial pressure of nitrogen. Solo divers have to consistently monitor themselves during a dive… shallow or deep… because there is NOT a buddy around to pinch them back to reality.
A SMB being deployed… to make this skill a little more challenging, some instructors will have the students wear a blacked out mask and ascend to a set depth (probably 20 feet) using knots in the line as a guide… fun stuff.
SECRET SIX

– SOP: Work within Real Limits

- Training
- Experience
- Equipment
- Environment
- Skills

IN THE FINAL ANALYSIS it’s all about LIMITS.

Solo divers should develop a standard operational procedures document / check list.

This will help keep their dives within their specific limits… Knowledge (gained through training), Comfort Level (built via experience and practice), the gear package they are diving with… TODAY, Conditions (which are dynamic and rarely the same from day-to-day), and how prepared they are for the game TODAY (keeping the appropriate skills – mental and physical – honed.)
Successful Solo Diving

– Understand the situation
– Manage Risk
– Correct Mindset
– Correct Kit
– Define Limits

In Summary:

Successful solo diving is an exercise in which a diver applies knowledge gained through training, practice and experience to the conditions he or she finds at the dive site. Solo diving requires special gear, a meticulously detailed plan and the mindset to execute it; and a solo dive must be conducted with regards to very tight limits.
Research Your Options

The skills taught in an SDI solo course are valuable to ANY diver; but not every diver should dive alone

At this time, I believe that SDI (Scuba Diving International) is the only sport agency offering divers education in SOLO diving. I've outlined some of the things you might expect from a course... and I hope they appeal to your sense of adventure; however, there is one promise I will make to you all. IF YOU WORK TOWARDS SOLO CERTIFICATION... Prerequisites are 100 logged dives... you will become a better diver AND you will have more fun than you have every had underwater.
EXPLAIN THE 100 DIVE BENEFIT… a reachable goal.