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A Note from the Chairman

“Dear Members and Supporters,

In the first four months of 2016, there have been 5 workplace fatalities from the Marine sector alone.

This, along with a rise in the number of fatal accidents in other sectors such as construction, has caused much concern amongst the marine industries and the authorities. The Ministry of Manpower (MOM) has, understandably, implemented increased surveillance and increased penalties for non-compliance to accepted safety standards. MOM has stated which activities they will focus their surveillance on – and this includes commercial diving.

Commercial Diving companies must also be concerned, not just as a reaction to the MOM surveillance, but in a proactive manner, to ensure the safety of the divers as they carry out their tasks. This can be done by ensuring that every dive operation is thoroughly planned and risk assessed, every diver has been trained, at a minimum, to the standard stated in the Singapore Standard (SS) SS511:2010 Code of Practice, and that they are provided with diving equipment that is suitable for the task at hand.

Although many in the Marine industry are cutting costs in these economically challenging times, there should never be a time when cutting corners in safety becomes acceptable.

A. Malik, Chairman 2016 / 2017



CDA(S) Diving Safety Seminar 2016

Save the Date!

CDA(S) is now planning the next annual Diving Safety Seminar, for 2016. This year, the Diving Safety Seminar 2016 is tentatively planned for 19 August 2016 (Friday) from 2.00pm to 5.00pm.

As always, this Seminar aims to promote Safety & Professionalism in the Commercial Diving industry. Speakers will be invited to share their knowledge and expertise on Diver Safety, Training, Legal issues and specialist Technical matters.

Do remember to mark it on your calendar and visit the CDA(S) website (<http://www.cdassg.sg>, Events page) for the latest information.



Diver Training and Job Placement

A successful collaboration between CDA(S) member KBA Training Centre Pte Ltd (KBAT) and the Employment and Employability Institute (e2i) has successfully produced what is almost certainly Singapore's first training and job placement programme for Commercial Divers. In this programme, e2i has secured funding for 24 divers – equal to two intakes of trainees – for them to take up the MOM-accredited commercial diver courses at KBAT. KBAT and e2i will also assist candidates to be recruited, in advance, into a commercial diving company willing to take them in.

High costs and long time

Due to the nature of the work, a comprehensive commercial diving course takes a lot of time, equipment, and, consequently, money. Countries such as the United Kingdom, Australia, New Zealand and South Africa have government-accredited diving courses, where even the entry-level Commercial SCUBA course runs at least 4 weeks, or more, at a cost of a few thousand dollars.

It should come as no surprise then that the local diving courses, conducted to match similar courses available internationally, should run for as many weeks, albeit for a lower price. Companies were reluctant to send their divers to these courses because, apart from the course fees, they would

sizeable wad with no firm guarantee of a job at the end.

Under this new job placement programme, open to, KBAT and e2i would arrange for companies to meet and hopefully “pre-select” suitable candidates for recruitment. The candidate would then proceed with the diving courses, knowing that he, or she, has a job in hand – provided, of course, he has successfully completed the training. With a signed agreement from the hiring company in hand, trainees who are Singaporeans and Singapore PRs are eligible for a grant of \$3,500 – half the cost of the training programme up to Level 2 Surface Supplied Diving Equipment (SSDE) Diver. The course is approved for SkillsFuture Credit where all Singaporeans aged 25 and above can use \$500 credit for their skills development and lifelong learning. It is a win for everybody: the company acquires a trained and certified SSDE diver at no training cost to themselves, the diver gets a training grant – and a secure job waiting for him.



(Left, above) Trainees undergoing Commercial SCUBA (CSCUBA) training within a training tank. Note the full-face masks and backup air cylinders.



factor in the cost of an employee being away for up to two months. Individuals also balked at the prospect of quitting their jobs and spending a

Good response from the public

Part of the promotion for this programme involved a video, shown on e2i's YouTube channel and Facebook page.



E2i, with the production team, visited the diving site and interviewed the instructors, students and also Malik (from CDAS), who shared their experiences and insights on commercial diving industry and how to climb the career ladder from a trainee diver. The video, titled "Singapore Jobs: Commercial Diving", can be viewed on the e2i channel *here*:

www.youtube.com/watch?v=xfo_i0qE1pg

A briefing was organised by KBAT and e2i on 2nd March 2016, which was attended by 100 people. Speakers included

- Iris Fung from e2i, who shared about how they help the Singaporeans to get a job and also share on the upcoming seminars they will be conducting
- Malik from CDA(S), who shared on CDAS role in the commercial diving industry and encouraged more young blood in Singapore to join the diving industry



- Zhao Wan Ting (*above*), a Marine Biologist & Diver, the first locally and KBAT trained female commercial diver. Wan Ting shared her experiences in diving and how the training has helped her in her career as a Marine Biologist & Diver at DHI Water & Environmental (S) Pte Ltd
- Darren Brunton from KBAT shared a good presentation on how he converted from British Forces to a saturation diver working in the offshore oil and gas industry and came to Asia for work, set up a company and how he has become today; sharing his journey and influencing the younger generation to join this exciting industry, how to move up the career tier for a commercial diver to a trainer or even a business owner

An Aptitude Day (*next page*) soon followed, where, in three sessions over two days, 14 candidates came to the KBAT diver training facility to try out diving, in the training tank, using commercial diving gear, while being guided by the course instructors. Out of these, 9 persons signed up for the courses and are on the way to becoming divers.



The Briefing cum Workshop (above), held at the Devan Nair Institute, attracted 100 potential divers, and a few experienced divers as well.



Aptitude Day: (Left) A candidate about to enter the training tank; (Right) Thumbs up! Candidates being guided underwater by the instructor (centre). More sessions are being planned for the future.

Association News

Annual General Meeting 2016

The **CDA(S) Annual General Meeting 2016** was on 11 May 2016 at CDA(S)' new business address, kindly provided by UMC International (SEA) Pte Ltd and Core IRM Pte Ltd.

The turnout was good, and included delegates from our industry partners from the Singapore Marine Engineering Employees' Union (SMEEU) as well as other guests from the commercial diving industry.

The Executive Committee (EXCO) is nominated and voted in every 2 years, as per our Constitution. This year, being two years since the last election, the EXCO was up for nomination and election again. There being no challenges or objections, the members of the EXCO who were present were reappointed to their posts.



(L-R) Bill Jordan (Advanced Marine Pte Ltd), Edward Hadi (Alphard Group - guest), A. Malik (Chairman), Richard Tan (Secretary; UMC International Pte Ltd), Alan Trevarthen (UMC International (SEA) Pte Ltd / Core-IRM Pte Ltd), Darren Brunton (Vice-Chairman; KBA Training Centre), Michael Gan (Underwater Contractors Pte Ltd), Helen Campos (MC Corporate¹), Yanty Kurnia Wati (MC Corporate), Colin Moray (Mencast Subsea Pte Ltd), Stevens Tan (Master-Tech Diving Services Pte Ltd – guest), Vivienne Tan (SMEEU), Mah Cheong Fatt (SMEEU); photographer Paul Baragwanath (Treasurer; Underwater Shipcare Pte Ltd).

¹MC Corporate Services Pte Ltd provides the Association's Secretariat services.

Commercial Diving: An Occupation or a Recreation?

A. Malik
Chairman, CDA(S)
MOM-Registered Workplace Safety & Health Officer (WSHO)

Historically, back when there was no government-accredited commercial diver courses available in Singapore, the common practice was to recruit recreational or military divers, then train them up in-house to become commercial divers. Some would eventually go on to obtain accredited “offshore” commercial diving training and qualifications from overseas, but these were a rare breed.

Recreational Diver training for Commercial Diving

Unfortunately, today when there are MOM-accredited diving courses available, companies are still recruiting those with recreational qualifications to carry out commercial diving jobs. This is far from ideal. A typical open water diver course – the usual entry level for a recreational diver – would normally consists of a few evenings of lessons and 4-5 dives at sea. Some resorts will complete the entire course in three days. It barely prepares someone for the rigours of commercial diving. Recreational diver trainees would NOT normally have been trained to dive in environments typically found in commercial diving such as:

- Diving at night (usually taught in advanced recreational courses)
- Zero Visibility – diving in water so muddy, the water is opaque or even pitch black, even with a torchlight.
- Diving under structures that prevents direct access to the surface e.g. under super-tankers, barges, platforms or even inside flooded pipes
- Diving in water tainted with oils, chemicals or sewage.



A surface-supplied diver (above) entering a flooded confined space (an underground tunnel).

Recreational divers are not trained for such tasks.

They would also NOT be trained in the most basic commercial diver skills such as

- First Aid and Diver rescues – a standard many clients insist upon.
- Operation of even basic equipment such as air compressors, underwater communications and full-face dive masks.
- Working in a dive team consisting of divers, attendants and supervisor.
- Having knowledge in and being able to carry out safety-related activities such as WSH risk assessments, safety briefings, equipment checks, isolation of machinery and other legally mandated items.

This is not to say recreational diver qualifications are not valid. Recreational diving certification cards are perfectly valid – *for recreational diving*. Millions of people around the world enjoy diving for fun, while on holiday on an island resort somewhere, without incident. I myself spent several years earning a living as a recreational dive instructor before I made the switch to commercial diving in 2003. When I did, I found myself facing a very steep learning curve.

This disparity between the “fun” nature of a recreational diving course and the challenging job of a commercial diver is something that is recognised by the recreational diving associations themselves. PADI, NAUI, SEI and PDIC – reputable recreational diving certification bodies – have all stated that training for recreational diving is not intended to prepare people for commercial diving, without further specialised commercial diver training. SEI and PDIC state flatly,

“Recreational dive training is no substitute for commercial dive training.”⁶

Similarly, the Association of Diving Contractors International (ADCI), a US-based commercial diving trade association, states,

“Certification cards issued by recreational agencies are not recognized as qualifying an individual to perform commercial diving activities in the absence of additional formal commercial diving training from an accredited source.”
(source: ADCI website)

In other words, those with recreational diving certifications can become commercial divers, **only after they have additional commercial diver training.**

Legal Status

So, in Singapore, are those with only recreational diving qualifications not allowed to become commercial divers? While not banned *per se*, the law makes it clear it is not safe to do so, unless the diver has received adequate training beyond his recreational qualifications. The Workplace Safety & Health Act states that Employers shall take steps:

“(12.3 e)...ensuring that those persons at work have adequate instruction, information, training and supervision as is necessary for them to perform their work.”¹

For commercial divers, this required instruction and training etc. is detailed in the Singapore Standard SS511:2010 “Code of Practice for Diving at Work”:

“Have training in accordance with the relevant Commercial Diving Competency Standards for Inland/Inshore issued by the Workplace Safety & Health Council, or its equivalent competency standard.”²

An examination of the stated “Commercial Diving Competency Standards”⁴ makes it clear that recreational diving courses **do not** meet these Standards.

The Technical Advisory (TA) for Commercial Diving from the WSH Council sums it up:

*“Recreational diving qualifications and military diver training **SHALL** not be suitable for occupational diving operations outlined in the scope of this TA.”³*

Client requirements

Going further, many clients do not accept recreational diving qualifications being used for commercial diving work due to their in-house safety management or legal requirements back in their home countries⁷. This can cause shipyards, diving companies, and freelance divers, to lose out on potentially lucrative projects and contracts if the divers are not properly qualified.

The International Association of Oil & Gas Producers (IOGP), for example, whose membership includes “oil majors” such as Shell, BP, Exxon, Chevron etc., specifically ban SCUBA diving in their operations and will reject any diver, no matter how experienced, who possesses only a recreational qualification. As IOGP states in their Diving Recommended Practice (RP):

SCUBA diving is considered an unsafe working practice and outside its use in Scientific and Archaeological Diving (appendix 14); not recommended within the scope of this RP.⁵

Recruiting new divers

When hiring divers, diving companies are therefore legally required to ensure the recruits are adequately trained as commercial divers. This can be done by hiring

- New divers who have undergone the new MOM-accredited commercial diver courses from a MOM-accredited Learning Service Provider (LSP)
- Experienced divers who have undergone the MOM-accredited “Assessment Only Pathway” (AOP) commercial diver assessment from a MOM-accredited Learning Service Provider (LSP) – *see below*
- Experienced divers who have undergone government-accredited “offshore commercial diver” courses from overseas (e.g. from UK, Australia, NZ etc.)
- Recreational or military divers, hired on a strictly probationary, non-diving “trial” basis (e.g. as dive attendants, surface support etc.), then sponsoring them for training at an accredited training centre

Interested candidates can even self-sponsor themselves for local accredited training (tapping on suitable funding subsidies from various agencies) to beef up their CVs before looking for work. This is the usual practice in countries where commercial diver qualifications are mandatory.

How do you tell the difference?

Diving competency certificates, both recreational and commercial, may come in either an A4- sized paper “wall certificate”, or a credit-card sized Certification Card (or “c-card”, as it is sometimes called). All invariably have the word “diver” or “dive” printed on each of them. Each has several levels of competency. Someone once asked me, “How do you tell the difference?”

I gave the questioner this answer, which is a useful shortcut if you find yourself in such a situation: **“If the card has a picture of a dolphin, sea turtle or clownfish on it, it’s probably not a Commercial Diving certificate!”**



A typical recreational diver card (above). Recreational diving agencies themselves state that recreational diver training does not prepare one for commercial diving work.

The “Old Birds”

There is, however, a real-world problem that is not easy to resolve: experienced, but uncertified, working commercial divers, who have been diving at work since before the first local diving courses were conducted in 2014. Some have recreational diving qualifications, some have Navy diving experience, and others with no qualifications at all. A few of these old timers have been diving since the 1980s.

It may not be financially feasible or practical for these experienced divers, to go “back to school” for 2 months to acquire the MOM-accredited qualification. For them, there are MOM-accredited “Assessment Only Pathway” (AOP) qualifications available, which can be completed in under two weeks at a lower cost. This allows them to take into account their “learned by experience” skills and also allow to correct any bad habits they may have inadvertently picked up.

Conversely, another option is to upgrade into a related, but non-diving, role, such as dive technician, operations, sales & marketing, HSE (such as myself), or even management.

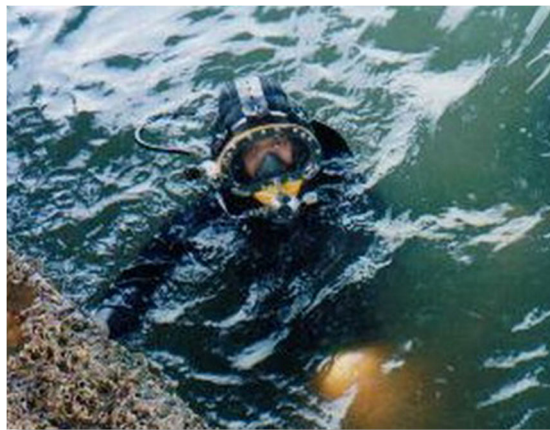
Moving forward

I believe there will be a time when recreational diving qualifications will eventually be phased out of the local commercial diving industry, to be replaced by accredited commercial diver qualifications, just as it has been in many developed countries. It may be expensive to make the change, but to not do so would cause one to lose out in the long run.

In a time when every forklift driver, security guard and restaurant plate washer requires mandatory training and certification – all in the name of health and safety – it should not be surprising that commercial divers, working in a higher risk environment, need to be trained and certified as well.

It is through steps like these that the commercial diving industry in Singapore can be truly world class.

In the meantime, I am still keeping my recreational diving qualifications – for the next time I am on holiday on an island resort somewhere!



The author in 2003 (above). Back then it was normal practice to hire recreational or military divers, or even non-divers, as trainees, to learn on-the-job. The AOP qualifications programme is one option for this generation of divers.

Further reading:

¹Workplace Safety and Health Act, and Subsidiary regulations – available from Singapore Statutes Online website <http://statutes.agc.gov.sg>

²Singapore Standards SS511: 2010 “Code of Practice for Diving At Work” – available for sale from Singapore Standards e-Shop www.singaporestandardseshop.sg

³Technical Advisory for Inland / Inshore Commercial Diving Safety and Health – available online from Workplace Safety & Health Council website “Resources” tab www.wshc.sg

⁴Commercial Diving Competency Standards for Inland/Inshore Commercial Self Contained Underwater Breathing Apparatus (CSCUBA) Diver and Surface Supplied Diving Equipment (SSDE) Diver – available online from Workplace Safety & Health Council website, “Training” tab www.wshc.sg

⁵ IOGP Report 411 “Diving Recommended Practice” – available on the IOGP website www.ogp.org.uk/Reports/Type/411/id/506

⁶ PADI, NAUI, SEI and PDIC – “Letters on Recreational Training and Certifications” – available on the ADCI website: www.adc-int.org/content.asp?contentid=147

⁷ Australia Diver Accreditation Scheme (ADAS) article, “Occupational vs Recreational Diving” – <http://adas.org.au/occupations-vs-recreational-diving>

Contact Us: Registered address – 29 Benoi Place Singapore 629946
www.cdass.com.sg