

# Turning the tables...

By Cheryl MacLeod

It's hard for many of us to think of distance or speed in anything but metric... so for some, having to convert back to imperial measure was a chore—but not anymore.

CF divers who until recently continued to use the imperial system, have now converted to metric, making things safer and more convenient for instructors and divers.

In the mid-1970's Canada adopted the metric system to replace the imperial system as the standard for units of measurement. The CF diving community decided since there was a close alignment with the US diving tables and procedures it would be impractical to switch to metric and continued to use the imperial scale, feet of sea water (fsw) and pounds per square inch (psi) as the standard. "One reason we started the program to switch back (to metric), was that younger members were taught the metric system, so we had to teach them what a foot was, it was counter-productive. Everyone knows metric," said Chief Petty Officer, 2nd Class Glen Gillan, metrication safety officer.

Since the CF diving community has its own tables and procedures there is no longer the need to use the imperial scale. As well, when operating with NATO dive teams who have for the most part adopted the CF tables (metric version) using fsw leaves the CF divers in a peculiar situation. "Using metric tables and procedures are safer and more efficient, in getting the diver out of the water faster," says CPO 2 Gillan.

CF Air and HEO<sub>2</sub> decompression tables were developed at DRDC Toronto by using real-time on-line dive computers programmed with a metric version, in metres of seawater, of the decompression model algorithm to validate selected depth-time profiles. In this method, it is the decompression algorithm, that is being tested not a printed set of tables. The printed decompression tables are derived from the decompression algorithm and incorporate stop times that

are rounded up to the next whole minute and other procedural requirements that make the printed table slightly more conservative than diving with the exact model. Asked whether rounding the numbers would have an effect on the divers, CPO 2 Gillan said, "No we're looking at maybe a couple of feet difference, a 6" (190 cm) person or a 5'4" (140 cm) person they use the same tables, their point of reference is different, there's more than enough safety built into the tables to accept this."

This conversion has affected clearance dive teams, search and rescue teams, ships dive teams, combat dive teams, port inspection dive teams, and CF recompression facilities in Winnipeg and Toronto, as well as both Fleet Diving Units.

As for the way ahead, the goal of the CF Diving Policy Committee is to have everyone converted by the end of March 2007—so far everything seems to be on schedule. The new wrist-worn dive depth gauges have arrived, and other equipment will arrive within the next few months helping make this goal a reality. They are also working through some issues with manufactures getting the right style gauges, particularly the dual gauges. "We want the predominate scale on the outside to be in metres, like it

is in you car, kilometres on the outside, miles per hour on the inside," said CPO 2 Gillan.

Generally speaking all divers in the CF dive with a common piece of equipment the CABA (compressed air breathing apparatus), the main target was to get that down pat so that everyone had the same standards as soon as possible. But there are a few disciplines unique only to the CF Fleet diving units, such as helmet diving and rebreathers. "This is a smaller target population, so we don't have to affect all CF people with this information, we just target those dive units using that equipment, so it's more manageable," he said. This whole process has been a self-paced process, so teams can maintain their operational capability, as well as plan their conversion and practical dives. "Once they get authority from their command to dive in metric, they put the tick in the box and away they go," said CPO 2 Gillan.

It is now up to each department and unit to go through the process, but it will be up to CPO 2 Gillan and the staff at Director Maritime Ship Support to make sure the right equipment is available, and that there is no mixture of imperial and metric out there, "so when teams are fully converted they will have only metric equipment at the dive site."



Helmet divers prepare to dive during Swissair 111 recovery operations. The tender on the right is not a BORG.

Des scaphandriers se préparent à plonger lors des opérations de récupération à la suite de l'écrasement du vol 111 de la compagnie Swissair. L'assistant de plongée à droite n'est pas un Borg.