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M.O.S.T. Newsletter – April 2006

From the desk of John McMillan

To Our Friends:

Could you Survive a Helicopter Crash?

The front page of the morning paper says "Helicopter Crash Claims the Life of One". Without reading the article, what do you think was the cause of death? This would depend I think if you work in the corporate headquarters of McDonalds or work in the offshore oil industry. In the business world, one may think they were shot down by enemy fire or the impact of a land crash was the cause.

But in the offshore oil industry, it would be they were caught inside the helicopter when it went down in the water and the cause of death was drowning. Not surprisingly, this is the #1 response in our HUET class when trainees are asked this question. However, looking back on my aviation career with a helicopter company, I too well remember conversations about people being caught on snag points after doing a wonderful underwater escape but they did not reach their final goal, that of "Breathable Air".

It is well known that escaping from a ditched helicopter that has crashed over water poses a great threat to one's life. Injury during the impact, lack of vision, in-rushing water, breath holding abilities or lack of, blocked or damaged exits and the possibility of panic in the cabin are all factors that can reduce the chances of a successful egress.

This message is not to discuss the process of underwater escape but to focus on what to do once your head is outside the exit but your body is still inside the aircraft. The initial response is to immediately head upwards once out the helicopter but this should not be done for the following reasons.

1) All aircraft that operate over Gulf of Mexico have inflatable floats for stability. These floats are next to the frame and create an immediate barrier from reaching the surface. When I was doing float inspections, it took a fully

outstretched arm to reach inside the A/C over the inflated floats for tools so you must go at least this distance underwater after escaping...at least.

2) If you take a lawnmower and turn it over to change the blade, you should expect some gas/oil spillage. It is the same with the capsizing of a helicopter. There will be floating fuel, possibly hydraulic oil and wreckage. As mammals who need air, we will break the surface with a gasping reflex. If this takes place in the area of spillage, respiratory issues (fumes, vapors, waves) may be the cause of death.
3) Remember when you entered the helicopter; you used a "step" to get in. Well this is another snag point that the survivor will pass close to. I do remember this causing the death of a person and when the aircraft was recovered, he was inches from the surface but hung on the step.

So, what should you do and where should you go once your head is outside the exit?

You now understand that you must go down or opposite the air bubbles (if any) and using your arms only (no kicking) do 2 sweeps with your arms to your side (minimum) at least before beginning you accent to the surface. We say "2 body lengths".

Once free from the aircraft, the survivor must be able to swim fully clothed away from the crash site, establish floatation by locating that little red toggle, locate/board the life raft, assist other if necessary, signal a rescue craft and take care of immediate medical needs of those less fortunate.

So when asked "can you swim", please remember that swimming and survival swimming are entirely 2 different skills.

For our friends and customers that work with and for Shell Oil, as of April 1, 2006 their international headquarters requires that employees/contractors go thru the METS training. METS stands for MODULAR EGRESS TRAINING SYSTEM.

These simulators resemble a helicopter, lower to the water by a hoisting system, cost hundreds of thousands of dollars and are manufactured in Canada, Ireland, England and I think in Scotland as the Scots were the first to develop/use this design. I first trained in the METS in 1981 as an exchange instructor with RGIT, Robert Gordon Institute of Technology, in Aberdeen, Scotland.

With this new policy, Shell employees & contractor companies are contacting us for this type of training. Please be advised that McMillan Offshore Survival instructors along with RGIT are involved in the METS training at the Shell, Robert, LA training center. Courses are offered on a weekly basis.

To my knowledge, this policy is only for Shell employees and Shell contractors. (If other companies are "requiring" the METS training, please contact me for a correction and update)

I would like to conclude by mentioning the following:

1) If a person is trained to perform pre-ditching procedures, proper bracing positions, understand the complications/problems of underwater escape, perform underwater problem solving actions and survival after escape to a level of competence, does it matter how this is accomplished?

2) I keep hearing/seeing that the Gulf of Mexico oil industry is being directed in the survival training arena by North Sea standards. My belief is we can learn a lot from these standards but need to apply standards to meet the GOM environment. In Malaysia, they meet the needs by having the word "Tropical" added to the course name as cold water survival is heavily emphasized in North Sea training and rightfully so. We do need to continue teaching trainees in the hazards of cold water even in the GOM but it should not take most of the focus.
3) And finally, for those that may be considering utilizing the METS for their HUET policy, I would strongly suggest that the person(s) who will be making that decision, attend & become familiar with and certified in the METS. It would not be advisable to approve a type of training just by looking and saying 'This is good training but I don't want to do it, not me". It does require aquatic confidence.

John McMillan, President
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