Book Review: A practitioner's study: about rope rescue rigging (Rhodes, 2014) *

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** Not peer reviewed.*

Title:	A practitioner's study: about rope rescue rigging
Author:	Pat Rhodes
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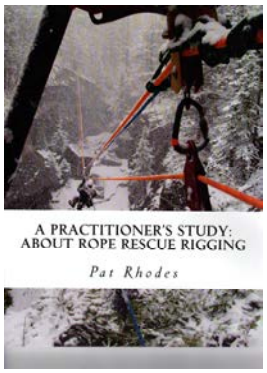

The title is somewhat misleading as I was expecting a higher level of analysis from a book referring itself to being a study. The book appears to cover topics of interest to the author, rather than a targeted body of knowledge for a certain group or level, as it covers basic knot tying and then is off theorising with physics formula. The content appears to be made up of course handouts and I found the design and layout disappointing when compared with other rope rescue texts on the market such as those by James Frank, Mike Brown and Tom Vines.

In particular there were a number of areas that were not well substantiated or misplaced. Zones were discussed but it appeared to be HAZMAT centric with warm zones typically 50 feet outside the hot zone and not consistent with other teaching ideology (i.e. warm zones being close to the edge and below the drop zone, hot zone being immediately prior and in the high/low angle, and cold zones being well away from either of these. A drawing of a typical high angle incident and the use of zones, rather than for HAZMAT and confined space would have been useful.

The book battles between professional opinion and empirical evidence. Much of the content offered is opinion or preference and although rationale is provided in many cases there is no research cited to validate the claims (though many points I agree with). The use of hand-tied prussiks is apparent (out) and yes, although there are certainly benefits with sewn prussiks (operationally and for the retailers of such product), claims that mis-tied double overhand bends (double fisherman's) as a risk would imply that a rope rescue technician cannot tie what I would deem basic knots (and in such cases, they should not be operational). The pre-disposition for hand-tied prussik loops to side load was also

confusing, as when applied correctly (i.e. offset the double overhand knot when connecting), this is not an issue. Just as a RIG descender can be rigged incorrectly, so can a prussic. Incompetence is not a valid reason to discontinue their use.

The use of the Petzl ID is a welcome addition; however the advice given is contradictory to the manufacturer's instruction. Firstly, the belaying position (non-loaded, p67) is incorrect but acknowledged by the author. More concerning however, is that the Petzl I'D (L version) is only rated for heavy load lowering when a second karabiner is used to create additional friction and guide the rope over the lip of the device. All examples of heavy use (i.e. >100kg) in the manufacturers technical sheet specify the use of the second (braking) karabiner and in some cases recommends a Munter (Italian) hitch on the braking karabiner. The book also only uses pictures and illustrations of the Petzl I'D S which is not NFPA General rated. The sole listing of the Petzl I'D S could infer to an unassuming reader that there is only one version or that that the Petzl I'D S is the rescue version creates risks as the Petzl I'D L can operate up to 272kg (72kg more than the Petzl I'D S) under certain rescue conditions (refer Petzl Technical Sheets for further information). This oversight with the Petzl I'D also contradicts the *out* of 1/2" (~12.7mm) rescue rope, and suggests 7/16" rope (~11.11mm) rope is more favourable – yet it is this smaller diameter rope that is not compatible with the Petzl I'D L which carries the NFPA G rating and 36% stronger than its smaller counterpart. This issue is compounded by manufacturers rounding the Imperial and Metric units to suit and that despite having a diameter tolerance to 11.5mm, there are not many 11.5mm rescue ropes available on the market, forcing Petzl I'D L users to adopt 1/2" rope (12.5mm) to ensure compatibility.

Also *out* is the RPM (Rack, Pulley and Mariner's Hitch) which I am in favour of as well, concurring with the experience that it is often too complex and hard to remember for some rope rescue teams (though again, no comparative analysis has been undertaken to provide an empirical basis). However, another area that is *out* according to Rhodes is load releasing hitches, which he says better options are discussed further in his book, however no such methods could be find later on.

The photographs are not always easy to interpret and the primary use of US units of measure and terminology (of knots in particular) limits applicability of the book for a global audience.

In the authors defence, the book does explore a number of contemporary techniques, devices and approaches which will be of use to rope rescue professionals including a well detailed explanation and application of rope physics (the strongest component of the book), building blocks of technical rescue, Petzl RIG, Rapid Ascent and Descent (RAD) rigging, Yate's shorty stitched shock absorber, Kong backup device, and skate-block method. It is these contributions that help evolve the rope rescue discipline and many other areas of needed research is also identified by Rhodes.

Pat Rhodes is a familiar name in the rope rescue world having over 35 years in the industry, 28 of those with the Phoenix Fire Department and 9 years as a FEMA Rescue Specialist. Retired from the

Fire Department, Pat still teaches technical rescue world wide with a private company. As with many of today's veteran technical rescue instructors, Pat appears not to have baccalaureate or graduate qualification, but his publication is edited by his sister Elizabeth who holds a Doctor of Philosophy (Education). Pat does hold an Associate Degree in Arts (Education) and fire related national certifications. The author certainly has credibility in this field, but unfortunately the quality and content of the book does not reflect this.

The book may be of use for instructors who want a chapter on rope physics and to see other gems that Rhodes includes, but it may not be a suitable as a class reference (acknowledging that Rhodes disclaims his book is intended to cover everything). That said, well done to any rope rescue instructor who puts the time into such an effort and publishes their thoughts to improve safety practices and techniques in this field.

About the reviewer

Steve Glassey is the Director of Public Safety Studies at the University of Canterbury, New Zealand. In his previous role as an Emergency Management (USAR) Advisor for the Ministry of Civil Defence & Emergency Management he authored the *National USAR Best Practice Guideline: Rope Rescue Tier Model* and National Certificates in Specialist Rescue (Rope Technician and Rope Instructor). He is a former Technician (CATII) with New Zealand Task Force 1 and Ambulance Rescue Technician/Duty Squad Leader and holds a Masters in Emergency Management. He is an active Instructor Trainer with Rescue 3 International and teaches NFPA1670 and 1006 compliant rope and water technical rescue programmes internationally. In 2014, he along with Geoff Bray (NZ Police Dive Squad) became the first New Zealanders to be awarded the *Higgins & Langley Memorial Award* for their development of the Swiftwater (body) Recovery Specialist (SRS) programme.