

# TECHNICAL RESCUE

# NEWSLETTER

## 52

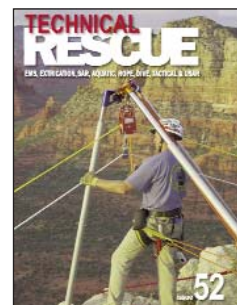
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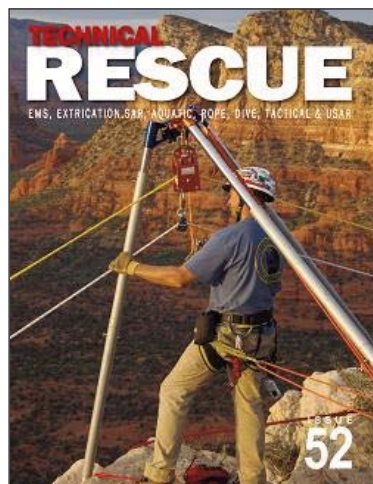
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# ISSUE 52 **Sampler**



OUT NOW

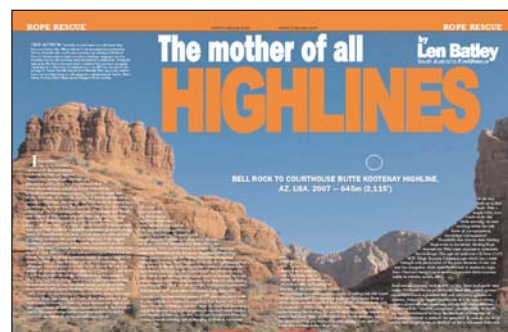
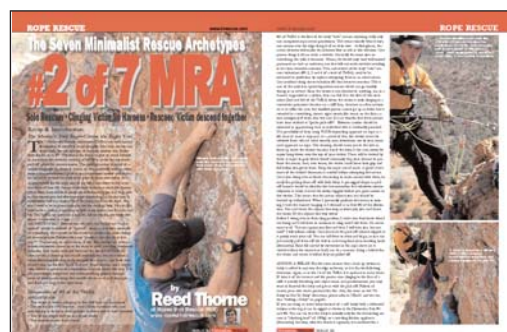
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**Left:** COVER 52: Issue 52 of the magazine is ROPE RESCUE SPECIAL. Mike Green of Montgomery County Fire (Maryland) stands next to the Arizona Vortex Multipod as the tagline hanger hooker for the impressive November 2007, 645m (2,115') sloping Kootenay Highline between Bell Rock and Courthouse Butte in scenic Oak Creek Canyon near Sedona, Arizona. The entertaining human story by Len Batley of what went right and what went wrong is contained in this edition of TRm. Photo by Reed Thorne from Ropes That Rescue Ltd collection

**Below Left:** Talk of the devil and it's Reed Thorne with his second Minimalist Rescue Archetype - pick-off rescues.

**Below Right:** Len Batley of the South Australian Fire Service and, incestuously enough, the Australian arm of Ropes that Rescue discusses the seriously long highline set up in Sedona, Arizona last Autumn/Fall



**Left:** Ivan Hansen completes his two-part series on Mississauga's transition from 'Heavy Rescue Squads' to Technical Rescue with a look at their assets. We don't normally 'do' firefighting but it was just too good a shot

**Right:** The first 5 in our top twenty Must-Have Rescue books



**Left:** Paramedic Firefighter Joe McMahon examines the dilemma facing collapse rescuers in 'clearing' possible spinal injury. How necessary is it really?

**Right:** Rigging plates are the subject of this issue's Market Guide



# ISSUE 53 **Sampler**



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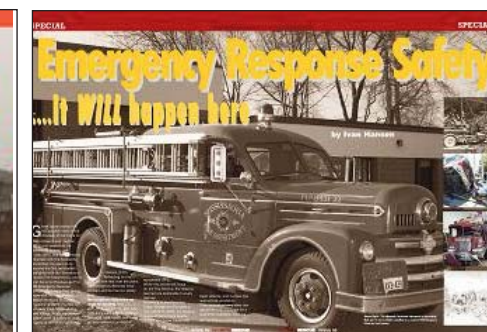
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**Left:** COVER 53: Having reviewed the new PWC course from K38 in the UK in the last issue this is the model favoured by K38 founder Shawn Alladio in California and here, after some hurried running repairs is used on a fundraiser for the Higgins & Langley Trust the swiftwater rescue awards program initiated by Nancy Rigg. The result of this years awards are on the final page of this newsletter

**Below Left:** Larry Collins of LA County Fire Dept picks up the reigns on mud and debris flow a subject that was very high on Jim Segerstrom's list of priorities just before his untimely death. Larry gets plenty of chances to put theory into action in one of the world's key hotspots for fire & flash flood induced mud slides.

**Below:** Ivan Hansen examines the aftermath of incident response calls that resulted in a crashed emergency services vehicle and Reed Thorne looks at pick-off rescues that require a rescuer to be lowered from the top.

**Below right:** Sean Johnson covers the basics in a two-parter on immersion hypothermia and Greg Churchman looks at the Raven TARP EX Rescue Pack.



**ALSO IN ISSUE 53:** • Lee Lang looks at Search Shadowing • Jez Hunter takes an irreverent look at the use of wire rope winches in Confined Space Rescue • Review of the Bauman Screamer 'Harness' • Review of the Mustang Special Ops Drysuit • Extrication tips • Reed Thorne and the 3rd of 7 MRA (pick-off rescue) • Top Twenty Rescue Books • Market Guide to Mini Pneumatic Airbags (footprint of 12" and less)

## later in the year: **ISSUE 54** Autumn 2008

GHOST - the UK's first Specialist Robotics Rescue Team

Ribs and Rigids - A Market Guide to rescue boats

Immersion Hypothermia continued

Reed Thorne on the AZTEK Pulley system

Confined Space/Peddle Cutters

Rope Rescue - New Coastguard Rope Rescue System

Helmets, PFDs and Cold Weather Clothing REVIEWED





## REVIEWS IN THE PIPELINE

A true multi-role helmet from Future-Safety in the UK seems to be attracting attention and we've been using the 'aquatic' version (blue helmet -right) and will shortly be trialling the USAR/Forestry version complete with ear defenders and multiple visor options. The aquatic model could just as easily be the high-angle or the boat helmet and has the option of integral semi-visor similar to the Gallet F1. Also from the aquatic world and pictured right we have the Crewsaver Harvester combination PFD/inflatable life jacket - one of their top of the range models and likely to be adopted by HM CoastGuard.



Left: Although we have now completed the winter review of the superb 66 North down parka we thought it would be more appropriate to hold it over until the Autumn/Fall issue when the northern hemisphere is moving towards colder weather.

Back to the warm and we've been testing the Cool-Vest, Cool-Helmet and Hydrokool (water-carrier



insert). Unlike ice, these units maintain a constant 50 degrees or so and don't trigger a shiver-rewarming process in the body. Easily recharged in a refrigerator or bath of iced water, Cool products last for several hours. Aside from working hard in a hot climate we've found that mud rescue in a drysuit is an ideal application because of the very real risk of overheating.

Left: On its way is the Arachnipod from Australia, a multi-function frame that converts from tripod to 4-leg beam gantry allowing excellent lateral manoeuvring of the load or clearing the load away from the drop.

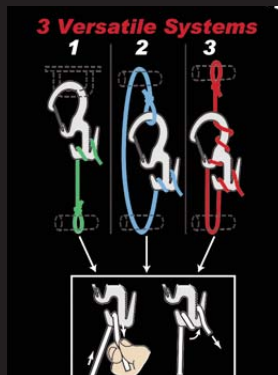


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## Who's Who at TRm?



**REED THORNE**  
**US Contributing Editor - Rope - USA**  
Rope Guru, Sedona SAR, ex-Firefighter, Stonemason and regular NASAR presenter,



**IVAN HANSEN**  
**Contributing Editor - Canada**  
Acting Fire Captain, Advanced Emergency Medical Care Assistant, ex-Coastguard Aux.

**Brian Robinson**  
TRm Con-Space Editor



Brian has been Certificated in Mines Rescue since 82' and a Qualified Mines Rescue Officer since 87'. He worked both part time and full time at Mines Rescue stations through the 80's and 90's including the Channel Tunnel rescue team and was the Technical Rescue Unit's senior Con-Space instructor and advisor 1990. Brian is now involved in training Mine Rescue, Confined Space Working, Confined Space Rescue / Advanced Rescue, Oxygen Resus, Defib, fire extinguisher use and SCBA worldwide. Since Brian lives in South Wales this is mainly within the UK & Ireland, but occasionally other countries, if they got the money, he'll go!!! Brian has adjudicated at last 4 annual Irish & UK mine rescue competitions and he now sits on the UK Mines escape & rescue working group.

## !!!!CONGRATULATIONS!!!!



Above: Gary Cross receives his Winston Churchill Fellowship Medal from Winston Churchill's daughter Lady Soames at the City of London Guildhall  
Left: Ivan Hansen grabs the posy but not the limelight from his new bride Jennifer photo by Joan Hopkins



**ADE SCOTT**  
**Editor - UK**  
15yrs Head of Technical Rescue Unit (TRU) (ret) past NASAR presenter, test guinea pig



**JIM SEGERSTROM**  
**US Editor - USA (died Feb 2007)**  
Water Guru, Founder Rescue3 International, Flight paramedic, Tuolumne County SAR,



**KELLY MATTHEWS**  
**Sales & Admin Director- UK**  
Law Costs Draughtsman, The real Boss of TRm



**GARY CROSS**  
**Senior Chimp - UK**  
Firefighter, ex-TRU, HMCoastguard, Extrication Team Medic, Marine Incident Response Group



**RICH HACKWELL**  
**Researcher - UK**  
HM Coastguard-Technical Rescue Consultant, Lifeguard, ex-Technical Rescue Unit,



**BRIAN ROBINSON**  
**Contribiting Editor - Con-Space - UK**  
National Confined Space Rescue Instructor ex-Mines Rescue, ex-TRU



**JEZ HUNTER**  
**Contributing Editor - UK**  
ex-Royal Marines, Water Rescue Team, USAR, Rope & Water Rescue instructor



**DR STEWART BOYD**  
**Contributing Editor - Medical -RSA**  
Top Medical Dog - KZN, Trauma Doc, Flight Medic, War-zone junkie



**LEE LANG**  
**Contributing Editor - SAR - USA**  
Ex-firefighter & EMT, current SAR team member and 2008 NASAR presenter



**JIM HUTCHEN**  
**Researcher - UK**  
Firefighter, ex-Technical Rescue Unit, Extrication Team Snr Medic, USAR Team



**SEAN JOHNSON**  
**Contributor -Dive Rescue -USA**  
Fresno Fire Dept Firefighter, USAR & Dive Team



**GREG CHURCHMAN**  
**Contributor -USAR/ Rope Canada**  
ex-Regina Fire Dept Firefighter, Pilot, Rope Rescue Instructor



**RICH BELL**  
**Contributor - UK**  
Dir Extreme Medics , ex-Police, Paramedic, Tactical medic, ex-TRU



**CHRIS WALKER**  
**Researcher - UK**  
Ex-Technical Rescue Unit, National RNLi Instructor (HQ),RNLi Lifeboat crew.



# VETTER S.Tec AirBag

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The new S.Tec Bags achieve a 25% increase in performance by innovative technology and an operating pressure of 10 bar/145 psi as opposed to the 8 bar Mini Lifting Bags and thus pave the way for the progress. In addition to the increase in lifting power of 25% (the lifting power of the largest S.Tec bag is 85t) they have a new, modern and well thought-out design and offer many practical-oriented features such as:

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## New AMKUS

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AMKUS Rescue Systems introduces the NEW AMK-21A Cutter with increased cutting capability. The new and improved version of the AMK-21 Cutter offers a new style cutting blade and maintains its UNIQUE 360 degree rotating handle. The design of the blades provides increased cutting capability and a higher NFPA performance level rating. Departments can specify the position of the control valve - left, right or centered in relation to the cutting blades - at the time of ordering. It delivers the cutting power needed for automotive application in a remarkably compact package. For more information, contact AMKUS 1-800-59-AMKUS or visit [www.amkus.com](http://www.amkus.com)



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TYPE OF INJURY BY TYPE OF VESSEL													
	Number of Injuries	Airboat	Aux. Sailboat	Cabin Motorboat	Canoe	Houseboat	Inflatable	Kayak	Open Motorboat	Other	PWC	Pontoon Boat	Rowboat
2006													
Total	3,474	16	34	320	38	14	27	16	1,863	36	919	97	13
Abrasion	16	0	0	1	0	0	0	0	11	1	3	0	0
Amputation	29	0	1	2	0	0	0	2	14	0	8	1	0
Back Injury	200	0	0	12	0	1	0	1	124	0	53	5	0
Broken Bones	526	0	5	36	1	2	3	0	262	4	195	15	0
Burns	55	0	0	12	0	0	0	0	32	1	9	0	0
Carbon Monoxide	51	0	0	41	0	3	0	0	6	0	1	0	0
Contusion	401	3	3	19	2	0	4	1	215	1	140	8	0
Dislocation	75	0	0	1	1	0	2	2	51	4	12	0	2
Electrocution	6	0	0	1	0	0	0	0	3	2	0	0	0
Head Injury	355	0	3	34	3	0	1	1	210	4	87	8	2
Hypothermia	170	0	5	12	24	1	3	5	91	2	2	5	14
Internal Injuries	86	0	1	6	1	0	0	0	44	0	31	1	0
Laceration	548	1	7	48	0	1	3	2	310	12	119	26	1
Neck Injury	61	0	0	5	0	0	0	0	33	0	20	1	0
Other	34	0	0	2	1	0	0	0	28	2	0	1	0
Shock	13	0	1	1	1	1	1	0	6	0	1	1	0
Spinal Injury	19	0	0	1	0	1	0	1	9	0	8	0	0
Sprain/Strain	70	0	0	7	0	0	1	1	42	1	17	1	0
Teeth and Jaw	21	0	1	3	0	1	0	0	5	0	9	2	0
Unknown	735	12	7	76	4	4	6	3	367	2	204	25	5

CAUSE OF DEATH													
	Lifejacket Worn?	Number of Fatalities	Airboat	Aux. Sailboat	Cabin Motorboat	Canoe	Houseboat	Inflatable	Kayak	Open Motorboat	Other	PWC	Pontoon Boat
2006													
Total		710	3	9	55	72	5	23	27	346	16	68	28
Carbon Monoxide	No	12	0	0	7	0	0	0	0	5	0	0	0
Cardiac Arrest	Yes	5	0	0	1	0	0	1	0	1	0	2	0
Cardiac Arrest	No	13	0	1	0	0	0	1	0	9	0	2	0
Drowning	Yes	51	0	1	3	6	0	10	5	15	0	9	0
Drowning	No	423	0	5	26	59	5	9	16	211	12	13	23
Hypothermia	Yes	6	0	0	3	0	0	3	0	0	0	0	0
Hypothermia	No	9	0	0	1	3	0	0	1	4	0	0	0
Other	Yes	11	0	0	0	0	0	0	1	6	0	3	0
Other	No	20	0	0	3	0	0	0	0	11	1	1	1
Trauma	Yes	49	1	0	2	0	0	1	0	17	0	26	2
Trauma	No	81	2	1	11	0	0	0	0	54	1	10	2
Unknown	Yes	4	0	1	0	0	0	1	0	1	0	1	0
Unknown	No	26	0	0	1	1	0	0	1	12	2	1	0

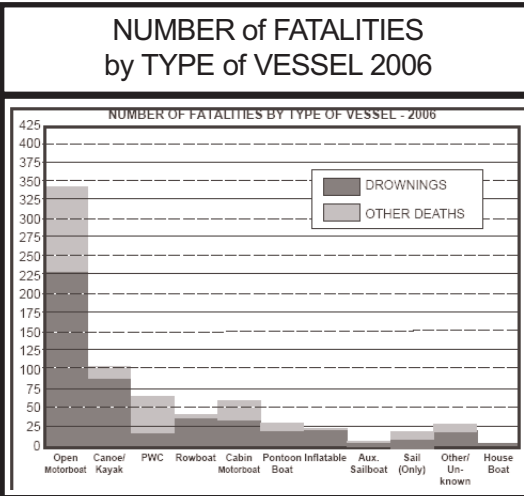
AGE of INJURED VICTIM by VESSEL TYPE 2006													
	Total Injuries	Airboat	Aux. Sailboat	Cabin Motorboat	Canoe/Kayak	Houseboat	Inflatable	Open Motorboat	Other	PWC	Pontoon Boat	Rowboat	Sailboat (only)
Total	3,474	16	34	320	54	14	27	1,863	36	919	97	13	48
Age of Victim													
12 and Under	231	1	0	13	0	3	3	131	1	83	13	0	3
13 to 19	628	0	1	37	9	0	4	295	7	251	10	1	8
20 to 29	726	2	2	52	13	2	5	394	8	223	13	4	6
30 to 39	670	3	3	48	6	2	3	307	0	177	12	2	6
40 to 49	477	4	8	68	5	4	4	245	8	104	11	3	10
50 to 59	333	2	9	37	2	2	7	195	0	46	18	2	5
60 to 69	133	1	4	21	6	1	0	73	1	9	12	0	3
70 to 79	42	0	2	9	1	0	0	22	0	3	2	1	0
80 and over	9	0	0	2	0	0	0	6	0	0	1	0	0
Unknown	328	3	5	37	12	0	1	195	15	43	5	0	7



The United States Coast Guard publishes Boating Statistics for every year. This is a snapshot of interesting stats for the latest year 2006. A more detailed pdf of this and other years back to 1997 are available at: [www.uscgboating.org/statistics/accident\\_stats.htm](http://www.uscgboating.org/statistics/accident_stats.htm)

Our thanks to Nancy Rigg for drawing our attention to the availability of this data

EXECUTIVE SUMMARY BOATING STATISTICS - 2006					
TOP TEN CONTRIBUTING FACTORS					
ACCIDENT RANK	CONTRIBUTING FACTOR	NUMBER OF ACCIDENTS	NUMBER OF FATALITIES		
1	OPERATOR INATTENTION	611	51		
2	CARELESS/RECKLESS OPERATION	517	28		
3	EXCESSIVE SPEED	464	39		
4	PASSENGER/SKIER BEHAVIOR	390	32		
5	NO PROPER LOOKOUT	368	20		
6	OPERATOR INEXPERIENCE	356	44		
7	ALCOHOL USE	351	133		
8	HAZARDOUS WATERS	294	63		
9	MACHINERY SYSTEM FAILURE	272	18		
10	EQUIPMENT SYSTEM FAILURE	141	9		
TOP FIVE TYPES OF ACCIDENTS					
ACCIDENT RANK	ACCIDENT TYPE	NUMBER OF ACCIDENTS	NUMBER OF FATALITIES		
1	COLLISION WITH VESSEL	1,360	75		
2	COLLISION WITH FIXED OBJECT	517	47		
3	SKIER MISHAP	510	12		
4	FALLS OVERBOARD	485	202		
5	CAPSIZING	455	215		
FATALITIES AND LIFEJACKET WEAR					
CAUSE OF DEATH	TOTAL NUMBER OF FATALITIES	LIFEJACKET			
		WORN	NOT WORN		
DROWNING	474	51	423		
TRAUMA	130	49	81		
OTHER	31	11	20		
CARDIAC ARREST	18	5	13		
HYPOTHERMIA	15	6	9		
CARBON MONOXIDE POISONING	12	0	12		
UNKNOWN	30	4	26		
BOATING CASUALTIES					
TYPE OF BOAT	NUMBER OF DROWNINGS	OTHER DEATHS	TOTAL DEATHS	TOTAL INJURIES	TOTAL CASUALTIES
1. Open Motorboat	225	120	346	1,863	2,209
2. Personal Watercraft	22	46	68	919	987
3. Cabin Motorboat	29	26	55	320	375
4. Canoe/Kayak	86	13	99	54	153
5. Pontoon Boat	23	5	28	97	125





# Drowning in Sudan

By Dan Graham

Dan is a full-time Instructor at Rescue 3 UK, prior to that he has been involved in volunteer lifeguard units across the UK and worked extensively with an aquatic safety & rescue team in France.

In March 2007 a unique project took place. A project that was run jointly by the British Council in Sudan and the Khartoum Sea Scouts. A project driven by men with such vision that, despite knowing nothing of the work of International Lifesaving Federation, and the World Water Safety Conferences, they managed to fulfil almost all of the points in the new Policy Statement that was published in the International Journal of Aquatic Research and Education late in 2007. The burden of drowning on the continent of Africa is unknown, World Health Organisation statistics vary between 60,000 and 90,000 depending on what year is examined, however this figure expressly excludes drowning deaths during floods, and any drowning death from transportation (ie ferries & boats). Clearly, data collection is incredibly difficult. The official figure from the Ministry of the Interior in Sudan is that there are 900 deaths per year, a figure that can be safely rejected as incorrect. Even in a small cross-section of people that we spoke to, almost everyone has a family member or close friend that has died in the Nile. The participants in the project were very aware of the dangers posed by the creatures that live in the Nile; crocodiles, hippopotami, barada (electric catfish), and bilharzia, to name a few; but very few understood the dan-

900

The (extremely conservative) estimate by the Sudanese government for the number of deaths per year attributed to drowning in Sudan.

gers of the water, and none understood the actual mechanism of drowning (most of them were under the impression you drowned through drinking the water, rather than inhaling it). Our project in 2007 was a pilot project, which was improved and re-run in March 2008 (and is again being planned for March 2009). The concept was simple, although the aims are multi-faceted. The genesis of the idea came from the global British Council project called Dreams & Teams, which has the aims of providing leadership skills, and social development through team sport. In Sudan, team sports are practised by a very tiny (wealthy) majority. Swimming, however, is practised by almost everyone, and requires no equipment or expenditure in order to participate. This idea, linked with the huge burden of drowning in Africa lead to the British Council contacting RLSS Trainer/Assessors in the UK with a view to running a water safety and rescue training camp. The participants were to be brought from the length and breadth of Sudan, in order to contribute to the British Council agenda of cultural interaction and facilitating mutual understanding between Sudanese people – the linking factor between all the candidates was the River Nile. Although the Nile varies enormously along its route through Sudan.

#### IN AT THE DEEP END!

Not really knowing what to expect, RLSS UK Trainer/Assessors, Dan

Graham and Tom Mecrow flew out to Khartoum. Waiting for us was a mixed bag of 19 candidates, three canoes, three Perry buoys, and a few lifejackets. We were also able to purchase a large quantity of plastic containers, and about a kilometre of nylon rope. An important aspect of the project was sustainability; we didn't want to teach anything that required special equipment; improvisation and basic techniques were the name of the game. As the camp got underway, it was clear that there were problems in the implementation of the selection process of the participants. Several of them were non-swimmers, and two were profoundly frightened of the water. Over the course of two weeks, we taught a combined swimming course and basic lifesaving skills – reach rescues, throwing rescues, and contact swimming rescues. Strong candidates were identified for potential follow-up after the completion of the camp. In February 2008 we got confirmation that the project was going ahead again. This time, we thought we had a good idea what to expect. The selection process had been hugely refined, leading to a group of 15 highly-motivated, focussed, very fit swimmers. We had anticipated that our job was going to be the same, to give the participants enough knowledge to give basic swimming lessons to their communities and to provide a basic "lifeguard" service. However, the project had moved on. The idea was to now provide water rescue training and ideas on how to target that training and cascade it down to community members.A



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wonderful surprise when we arrived was the presence of two participants from last year who had been invited back for further training and to work as our “Assistant-Trainers”. This was a huge boost for us, as it enabled us to obtain a very good evaluation of the project last year, and its strengths and weaknesses. Both Emanuel and Al-Racheed had run successful projects in their home villages, and it was very interesting to discover what elements of the course they had found useful. It was also humbling to learn that lives had been saved, as a direct result of our training.

The World Health Organisation statistics from the year 2000 show that 409 272 people drowned, and in 2002 that 382 000 people drowned. These numbers are a huge underestimate – as they specifically excludes deaths in floods, and any



accidents relating to boats. 97% of these deaths from drowning are in low-income countries. The statistics also show that over 50% deaths from drowning are children under 15. The impact of these drownings is huge, in low-income countries; children of this age are frequently economically active, providing childcare in the family, and also out working to bring in money to the family. The second group that has been identified as particularly at risk is fishermen, typically young men (research in Uganda has demonstrated that the death of one fisherman has a direct impact on an average of seven people). Research in Bangladesh by UNICEF and TASC (The Alliance for Safe Children) has clearly demonstrated the benefits of basic water safety and swim training, particularly to mothers and very young children. Applying the old mantra that “prevention is better than cure”. The Bangladesh Health and Injury Survey has found that an average of 46 children drown **per day!** (17,000 per year) Around four times this number *nearly* drown. In Vietnam an average of 32 children drown each day, with the same amount *nearly* drowning. Given the living conditions, and ways of life; it is not unreasonable to extrapolate these figures to Africa. With the predicted population growth for Africa and Asia, these numbers are going to get worse. To put these numbers into per-

spective, in the UK the statistics published by RoSPA show a fairly stable rate of drowning deaths at 430 – 490 per year, that is children and adults. The solution to this problem is already known. There is no need to invest thousands in research and development. We know that targeted water safety information will help reduce this horrifying statistic. It is simply a case of educating the carers in the families (mothers and older children) about the dangers posed by water, and how important it is that children are closely supervised. Once the children are old enough (4 or 5) they should be taught to swim. The materials and resources exist, they just need to be modified in such a way so that there is no requirement for literacy to understand them. Drowning is a silent killer. It’s not a fashionable problem, it doesn’t attract the headlines in the same way that AIDS, Malaria, and even Typhoid do. We don’t have to search for a cure for drowning. We just need motivated, and dedicated individuals to share their knowledge and skills. Many readers will be involved in aquatic rescue, working incredibly hard to reduce the drowning statistics in our respective countries. In our line of work, it is easy to get too focussed on PFDs, drysuits, the latest “bling” bit of kit; and forget the bigger picture that we are all a small part of. In the UK, after the recent flooding events, Fire Services are spending huge amounts of money on training and equipment, ultimately to save lives. I am unable to locate definite figures of how many people lost their lives in floods in the UK over the past few years, but I’m pretty sure that it will be a lot less than the amount of people who lost their lives to the water in one day in the developing world.

*My grateful thanks go to Paul O’Sullivan and staff at Rescue 3 UK for allowing me time off work to travel out for the project in Sudan.*



LFB on the Water

GALLERY

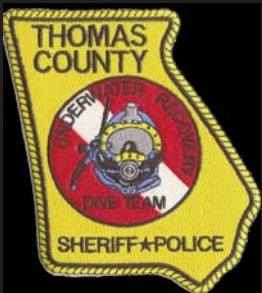


Dedicated equipment is great when it’s available but what happens when your first vehicle on scene is just carrying the basics? Main Pic: London Fire Brigade experiment with using SnakeEye cameras for underwater searches. Though not ideal these are currently available on all FRU (Fire Rescue Unit’s) for use in extrication and USAR incidents. In the absence of a dedicated system like SCUBAR or Seach Cam the SnakeEye proved to be a competent ‘quick-fix’. Insets Left to Right: Together with Coastguard and RNLI colleagues, London Firefighters experiment with a number of impromptu water and mud rescue measures; an inflated hose towed by a small RIB can assist with mass in-water casualties; The Eurocraft inflatable sled is equally at home on water as on mud or ice; the oft-quoted by seldom used inflated hose around ladder proved to have some merit - if it floats on water, albeit without a huge amount of stability it will surely provide an adequate emergency access measure for ice and mud?



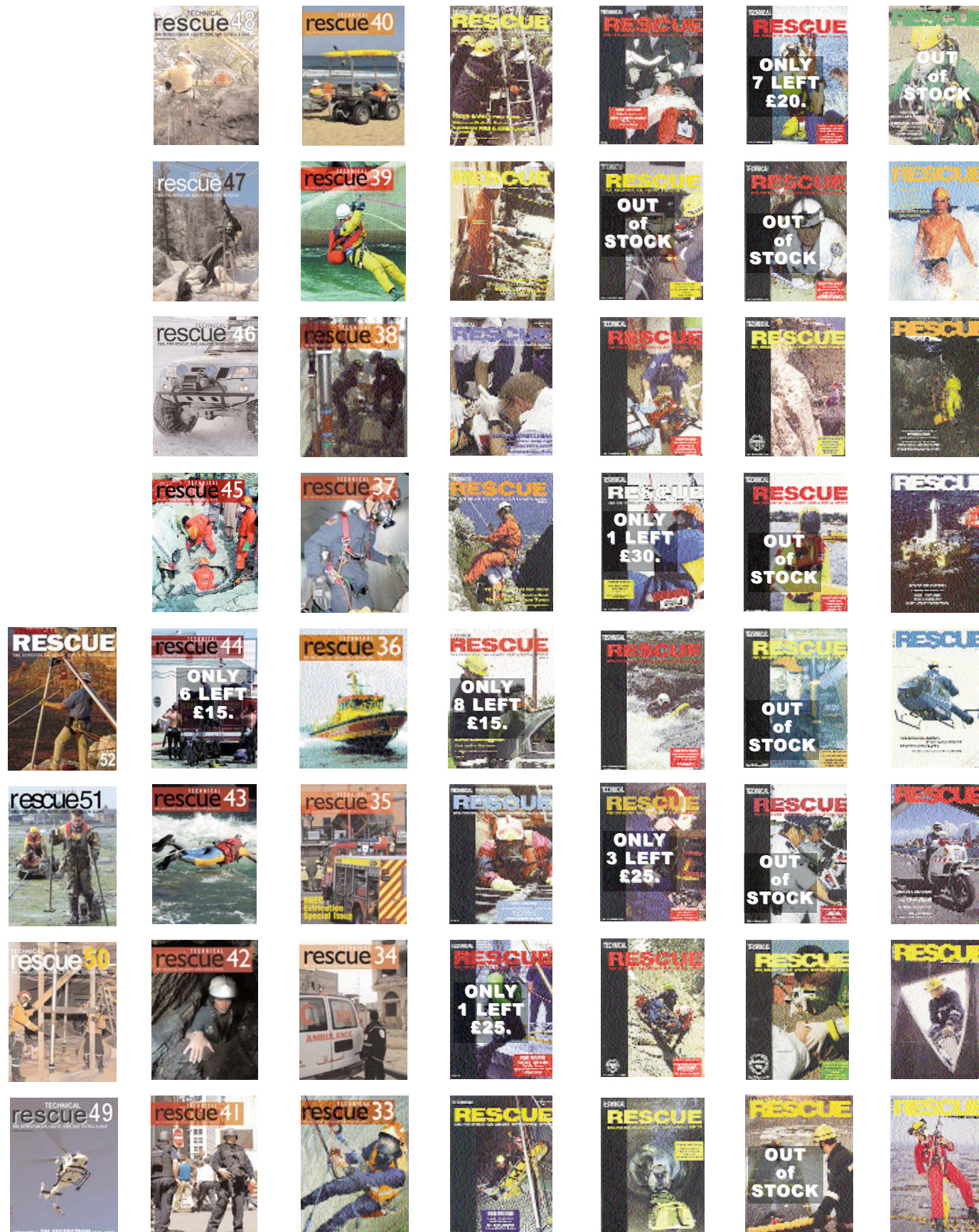


**Left:** Belgian rescue instructor Rodney Sebrechts elevates the belay line into the Arizona Vortex for a standard high angle litter edge transition.  
**Above:** For those who missed issue 52 and Reed Thorne's phenomenal highline another of John Burcham superb shots taken during this event supported by Sterling Ropes who supplied no less than 800m or rope for the single span. Here Becky Cordova of Sacramento Metro Fire Dept is captured in mid-deployment.  
**Right:** Dubai Civil Defence responsible for fire and USAR in the northernmost of the United Arab Emirates take delivery of a Mercedes Unimog conversion by Rosenbauer





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# FOCUS ON ISSUE 37



## Issue 37

came out in early 2003 and featured a Technician from the Sound Beach Fire Depts Technical Rescue Team on the front cover. Having repeatedly warned of the impending floods in Europe despite the emphasis on USAR following 9.11 Jim Segerstrom waded into the 'preparations for flood' discussion, a discussion pretty much

begun and propagated by Jim himself along with other wise heads like Slim Ray who described floods as a significant 'weapon of mass destruction'. This issue's article was entitled FLOOD CONTROL an OXYMORON and focused on the mistakes that could be made if we continued to believe that we could 'control' a flood or 'manage' a disaster. While most of the UK was still in denial that flood events even occurred let alone required some degree of pre-planning Jim was busy re-focusing the existing SWIFTWATER RESCUE courses and training to take account of the longer duration and phased flood events. Dr Rob Dawes (now of National Geographic fame!) and Ade Scott headed to Vegas to attend the cream of specialist Airway Management courses Drs Ron Walls, Mike Murphy, Bob Schneider and Bob Lutens' THE AIRWAY COURSE. This was a fantastically well presented, no-nonsense course primarily aimed at docs but every paramedic would gain from this course. I don't know if it's still be run in any guise but if it is, book your place. Well OK...save some money then book your place - it was \$1000. back then so I dread to think. In those days we (The Technical Rescue Unit) helped deal with most large animal rescues, primarily due to our heavy lift and rigging capabilities rather than the specialist animal handling skills that Hampshire Fire Rescue Service now has. In our incident report we describe the effort involved in rescuing a large cow that had wandered off a cliff and if that wasn't bad enough it then proceeded to get stuck in the mud! Rod Campbell and Brendan Morris, then of the Technikon Natal in Durban examined the efficiency of remote shoring (in trench rescue) using auto-locking struts and air or hydraulic setting and standard manual shoring. Not surprisingly, auto-locking struts were found to be a whole heap quicker and safer than manual struts! With his usual in-depth, analytical and numerically challenging

style 'Professor' Al Sheehan looked at some belay drop test outcomes in very, very great detail. In fact in some cases to 6-decimal places!! The point of Al's article was to highlight the problems associated with having any kind of belay AT ALL and was an argument in favour of a well managed single rope system. Controversial but he had a point! In the second of our two Technikon Natal articles, experienced paramedic and rescue technician turned dept head Rob Owen (who has since moved to an Ambulance management position in the UK) and S. Naguran trashed the idea of self equalising anchors actually being able to self equalise at all. It was something we'd pointed out before in TRm but as usual the boys at Technikon Natal provide the data to back it up. Finally Geoff Williams, ex-Deputy Firemaster of Central Scotland and one of the early USAR advocates looked at shoring in an underground railway system. A useful portent to the event of July 07 in London. Oh, and we managed to slip in a typo on the Gallery of Pentagon shoring pictures and move 9.11 to the year 2000!

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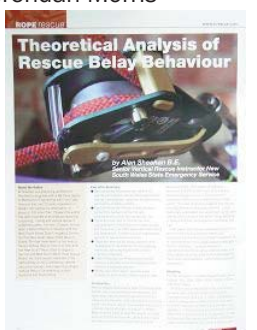
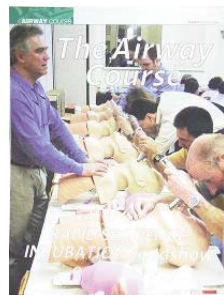
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- Why people die  
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Fatalities at the scene of the accident  
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2008 Higgins & Langley Awards

**The Higgins & Langley Memorial and Education Fund Nominations Committee**  
presented the 2008 Higgins & Langley Memorial Awards in Swiftwater Rescue at this year's National Association for Search and Rescue (NASAR) conference in Colorado Springs, Colorado, May 2008.

**OUTSTANDING ACHIEVEMENT IN THE FIELD OF  
SWIFTWATER RESCUE**  
**Keeseville Volunteer Fire Department, New York**

Fire Chief Leonard Martin and the Keeseville Volunteer Fire Department (KVFD) received the 2008 Outstanding Achievement Award in recognition of their visionary determination to develop a pioneering swiftwater rescue program to serve their rural community in upstate New York, which features two fast moving rivers, the AuSable Chasm, and Lake Champlain. According to Thomas Dragoon, whose 24-year old son, Mark, lost his life in the AuSable River in Keeseville on June 5, 2006, Chief Martin and the KVFD Swiftwater Rescue Team had been working since 2004 to build their swiftwater rescue program. Hampered by a lack of funding and mandates to provide this critical technical rescue capability, their single rescue boat was transported to emergencies on a snowmobile trailer and the agency only owned four sets of swiftwater rescue gear. When tragedy struck the Dragoon family, KVFD mobilized 45 federal, state, and local agencies and 310 volunteers over an intense, 10-day search to recover Mark's physical remains. "Their never-wavering devotion to duty and honor speaks volumes of the volunteer spirit that is America," Dragoon says of Martin and his team of 45 rescuers, 10 of whom are trained to the technician level in swiftwater rescue and 20 of whom have received swiftwater rescue awareness level training. In gratitude, Dragoon nominated KVFD for the "Firedog across America Award" in 2006, raising more than \$60,000 to build the agency's swiftwater rescue program.

**LIFETIME ACHIEVEMENT AWARD:**  
**Fire Captain Lawrence (Larry) Collins,  
LA County Fire Department, Los Angeles, California**

In recognition of the groundbreaking contributions that have been made by Fire Captain Larry Collins to the field of swiftwater and flood rescue throughout his 28-year career with the Los Angeles County Fire Department. As a visionary leader, rescue technician, trainer, and author, Captain Collins helped redefine the world fire service's mission to include swiftwater and flood rescue response capability.

**PROGRAM DEVELOPMENT AWARDS:**  
**Chief Fire Officers Association- UK,  
Management of Major Flood Event Research Project  
Chief Fire Officer Paul Hayden, Team Leader, United Kingdom**

In recognition of the pioneering and visionary Chief Fire Officers Association Major Flood Event Research Project, under the leadership of Chief Fire Officer Paul Hayden, resulting in the development of a comprehensive flood and swiftwater rescue emergency response plan for the United Kingdom.

**San Diego Regional Aquatic Lifesaving Emergency Taskforce  
(SDR ALERT), San Diego, CA**

SDR ALERT has developed a model program for the regional coordination of and response to aquatic emergencies in San Diego County, California, including swiftwater and flood rescue operations. Member agency criteria includes standardized training, operational guidelines and response plans, preidentified aquatic first responders, solutions for interoperability communications and agency response agreements, intensive training exercises, and promotion of public education and public awareness.

**INCIDENT AWARDS:**  
**Sergeant Kathy Curtic,  
Fresno County Sheriff's Office, California**

In honor of the heroic rescue of two unconscious and unresponsive victims, a mother and her sixyear-old daughter, who were being swept downstream in the powerful, cold current of the Kings River

in Fresno County, California, on June, 16, 2007. Exceptional skill and experience in swiftwater rescue allowed Sergeant Curtice to take a measured risk to perform these rescues in treacherous conditions, with only the aid of bystanders.

**United States Coast Guard Station Tillamook Bay  
Garibaldi, Oregon**

In honor of the rescue of 47 citizens and a dozen domestic animals from extremely treacherous, rising floodwaters in the communities of Tillamook, Bay City, and Garibaldi, Oregon, by the United States Coast Guard, Station Tillamook Bay, on November 6-7, 2006. Crew members include: Boatswains Mate 1st Class Thomas P. Molloy, Boatswains Mate 1st Class Corbin J. Ross, Boatswains Mate 1st Class Brian C. Trotter, Electricians Mate 1st Class Marcus L. Benally, MachineryTechnician 1st Class Joe W. Majewski, Boatswains Mate 2nd Class Jon A. Beam, Boatswain Mate 2nd Class Conor A. Bennett, Machinery Technician 2nd Class Timothy P. Hurd and Seaman Catherine M.Hogan.

**United States Coast Guard Air Station Humboldt Bay  
McKinleyville, CA**

In honor of the April 17, 2007, rescue by the crew of United States Coast Guard HH-65C Helicopter 6583, Group/Air Station Humboldt Bay, California, of an elderly gentleman whose vehicle plunged off of a 30-foot embankment and was lodged in the midst of treacherous rapids in the Smith River. Crew members include: Lieutenant Commander Daniel D. Unruh, Lieutenant Stephen T. Baxter, Aviation Electronics Technician 1st Class Mark Samaniego and Aviation Survival Technician 2nd Class Shawn M. Lesko.

**SPECIAL COMMENDATION AWARDS:**  
**United States Border Patrol, El Paso Sector  
Swift Water Rescue Team**

In honor of an exemplary swiftwater rescue team that is responsible for the training of U.S.Border Patrol Agents assigned to the El Paso Sector, resulting in the documented rescues in 2007-08 of 182 people from the Rio Grande River, irrigation canals and flash floods in the El Paso, Texas, and Southern New Mexico area. Since its inception in 1997, in an effort to promote safety and reduce the death toll in the waterways throughout the region, team members have provided swiftwater rescue training to other local, state, and federal agencies, as well as emergency service agencies in Cd. Juarez, Chihuahua, Mexico. Team members include: Frederick W. Webb, Team Commander, Instructor; Paul Klauss, Instructor; Isidro Trevino, Instructor; Albert Herrera, Instructor; Nicholas J. Veliz, Instructor; Gustavo Renteria, Tech I; Jose Padilla, Tech I; Julio Mendez, Tech I, and William Jackson, Tech I.

**Driver\Engineer Edward W. Miller  
Colorado Springs Fire Department**

In recognition of D/E Miller's exceptional leadership in swiftwater rescue and recovery operations. As an instructor and mentor, Edward Miller has overseen the training of more than 700 swiftwater rescue technicians and 337 dive-recovery specialists. He is also credited for his direct involvement for saving the lives of ten people in swift water conditions.

*The Higgins & Langley Memorial Awards are sponsored by CFS Press, CMC Rescue, Inc., K38 Water Safety, Liquid Militia, Rescue 3, International, Rescue Source, Rescue 3 Virginia, Rescue ONE Connector Boats, Rig Systems, San Marcos, Texas Fire Rescue, SkyHook Rescue Systems, Inc., and Zodiac Maritime Training Academy. Additional support for the Awards is provided by the family of Adam Bischoff, the Rudi Schulte Family Foundation, Jon Stephen and Karen Langley Stephen, and Shirley A.Rigg, as well as contributions from other generous individuals. The Higgins & Langley Memorial Awards were established in 1993 by the National Association for Search and Rescue in honor of Earl Higgins, a writer and filmmaker, who lost his life in 1980 while rescuing a child who was swept down the Los Angeles River, and Los Angeles County Firefighter Paramedic Jeffrey Langley, a pioneer in swiftwater rescue who lost his life in helicopter incident in 1993. For more information, visit [www.higginsandlangley.org](http://www.higginsandlangley.org).*