FIRE AND RESCUE INTERNATIONAL

Integrated fire, rescue, EMS and incident command technology

Volume 4 No 3

Official magazine
SAESI

29 Oct - 3 Nov 2017

Expo Centre NASREC, Johannesburg

CLIMATE CHANGE AND THE EMERGENCY SERVICES

The 31st SAESI Conference, Exhibition, Training Events and Challenges

CONFERENCE

EXHIBITION

TRAINING

CHALLENGES

SAESI 2017

CLIMATE CHANGE AND THE EMERGENCY SERVICES

SEMPER PARATUS

THE LARGEST EMERGENCY SERVICES CONFERENCE AND EXHIBITION IN AFRICA

The programme will include:

- Conference
- Exhibition
- Gala dinner
- Cocktail evening
- SAESI EXCO meeting
- Fire Fighter Challenge
- Vehicle extrication
- High angle rescue
- Emergency medical rescue
- Incident command system
- Badge swopping evening
- World record attempt
- Meet and greet
- And much more!!

Save the date!

Conference programme, exhibition layout and details on the training events and challenges will be released shortly

For more information contact the organiser
Lee Raath-Brownie at **Fire and Rescue International**
Tel: 011 452 3135 **Cell:** 082 371 0190 **Email:** lee@fireandrescue.co

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FIRE AND RESCUE INTERNATIONAL

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Comment

Lee Raath-Brownie

We are proud to present our 38th edition of Fire and Rescue International (FRI). Enjoy the read!

Southern African Emergency Services Institute (SAESI) News
The latest news from SAESI starts with the customary message from SAESI president, Dino Padayachee. Arlene Wehr provides feedback on the recently-held World Rescue Organisation Extrication Challenge in Brazil and Heinrich Louw shares news from the Southern Cape region.

In the news
A new fire station for Pringle Bay volunteers, new wildfire units for City of Cape Town, new vehicles for Groblersdal Fire Station and an aquatic rescue exercise by the University of Johannesburg forms the news in this issue. We also honour Mossel Bay fire fighter, Nadia Julies.

Hazardous materials: flammable liquids, UN class 3
In this third part on hazardous materials, Colin Deiner unpacks the risks and hazards of flammable liquids at fixed installations. Deiner discusses the management of incidents in petro-chemical facilities, incident command, initial operations, incident types, fire fighting considerations and the importance of the establishment of zones of control, and protecting exposures.

Fire service profile
Our fire service this month features the City of Rijeka Fire Brigade in Croatia and deputy commander Dario Gaus provides an interesting overview of the history, current operations and competencies as well as the challenges faced by this historic fire brigade.

Prescribed burning
Angelo Aplon describes the reasoning behind Overstrand Fire, Rescue and Disaster Management's strategy of prescribed burns in order to mitigate runaway wildfires.

Post-traumatic stress disorder (PTSD)
Mike Webber looks at strategies for preventing PTSD. Webber provides practical solutions and hands on advice to alter life styles, providing resilience against PTSD. This article is a must read for all, not only first responders. File it and read it regularly!

Toughest Fire Fighter Alive 2016
A photo gallery and the results of the 2016 Toughest Fire Fighter Alive Challenge held in George, hosted by Eden District Municipality. Congrats Emile and Precious!

World Rescue Challenge 2016 Brazil
Julius Fleischman and Neville van Rensburg provide an overview and the results of the world's largest rescue challenge, which was held in Brazil in October 2016. Great news is that South Africa will be hosting the event in 2018!

Conferences, AGMs and competitions
We bring you feedback of the NMMU-SAIF Fire Management Symposium held in Kruger National Park, DMISA's annual conference and AGM in Rawsonville and the Marsh First Aid and Fire Fighting competitions for 2016.

Thank you to our contributors, readers and advertisers for making this magazine possible. Also, a very BIG thank to all our first responders for doing what you do best! Fire and Rescue International is your magazine. Read it, use it and share it!

Lee Raath-Brownie
Publisher

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Proudly serving those who serve

This month's FRI images winner!

Congratulations to

Breede Valley Fire Department for their photograph 'Ready' taken with a Canon EOS 6D with a shutter speed of 1/320 of a second, ISO 800 and an aperture 4 F-stop.

Well done!

Breede Valley Fire Department wins this month's prize money of R 2 000!

Photo description:
This photo was taken during the 'Smoke alarms save lives campaign' in partnership with Western Cape Government Fire and Rescue Services and Breede Valley Fire Department.

Submit your rescue, fire or EMS photo and win R2 000!

WIN R 2 000 every month!

Fire and Rescue International's (FRI) monthly photographic competition is open to all its readers and offers you the opportunity of submitting your digital images of fires, fire fighters, disasters, emergencies and rescues.

The rules are simple:

- All photographs submitted must be in jpeg format and not bigger than 4 megabytes.
- Photographs must be in high resolution (minimum 1500 pixels on the longest edge @ 300dpi) for publishing purposes
- **Allowed**: cropping, curves, levels, colour saturation, contrast, brightness, sharpening but the faithful representation of a natural form, behaviour or phenomenon must be maintained.
- **Not allowed**: cloning, merging/photo stitching, layering of two photos into one final frame, special effects digital filters.
- Fire and Rescue International (FRI) reserves the right to publish (printed or digitally) submitted photographs with acknowledgement to the photographer.
- Winners will be chosen on the merit of their photograph.
- The judge's decision is final and no correspondence will be entered into afterwards.
- Brief description should accompany photo.

Entries must include:

Name of photographer
Contact details (not for publishing)
Email (not for publishing)
Name of photograph
Brief description of photograph including type of fire
Camera, lens and settings used

All entries must be emailed to:
lee@fireandrescue.co

>>ENTER NOW!

SAESI President's comment

Reflecting back on the year of 2016, we must admit that it was another successful and memorable year. At our last annual general meeting (AGM) we made history by electing our very first lady president, Ms Arlene Wehr. Then we embarked on the professionalisation of our company, which is in its final stages. After many years the long awaited SAESI House was purchased and now all staff operates from the new SAESI House premises in Krugersdorp, Gauteng.

We are currently preparing for the 31st conference, exhibition and training event to be the biggest fire conference, exhibition and training event on the African continent and there appears to be a lot of interest being generated from local, national and international communities. Dates are set for 29 October to 3 November 2017 at NASREC, Johannesburg.

We would like to congratulate the extrication team from the Western Cape who participated in the international extrication competition for their courage and success. SAESI was proud to partner with you in this event. Thank you for flying the South African and SAESI flag high.

2017 looks good for SAESI as we will be officially launching the new SAESI House shortly. We also intend to announce new directors of the SAESI Board once all due processes have been followed and completed.

On behalf of the Southern African Emergency Services Institute, we take this opportunity to wish all our members, non-members and their families a Merry Christmas and a wonderful and prosperous 2017. May your year ahead be filled with light, good health, wealth, peace, happiness and amazing moments!

To all our emergency services personnel that are working over the festive period, please be safe and take extra precautions when responding to incidents.

Dino Padayachee, president, SAESI

SAESI FESTIVE HOURS

2016 - 2017

15 December 2016 - Closed from 12h00
16 December 2016 - Closed (Public Holiday)
22 December 2016 - Closed from 12h00
23 December - 2 January 2017 - Closed
Office re-opens on 3 January 2017

South African team participated at WRO Extrication Challenge 2016

by Arlene Wehr

A team of eight City of Cape Town fire fighters attended the World Rescue Organisation's (WRO) Extrication Challenge 2016 in Brazil, representing South Africa. The extrication challenge ran from 19 to 23 October 2016 and was held at Barigui Park in the city of Curitiba, Parana in Brazil.

The team comprised of Morne Adrian Haskell, Virgel Randell Cloete, Gershwin Cloete, Warren Frank Sam, Michael Holster Gardiner, Keenan Peter Walters, Kirk Ogilvy Wernars and Arlene Fiona Wehr, vice-president elect for the Southern African Emergency Services Institute (SAESI). WRO assessors Neville van Rensburg, Julius Fleischman, Fabian Hoffman and Richard Botha also attended the WRO Extrication Challenge.

Fire and Rescue International interviewed the team leader, Arlene Wehr, divisional commander, Cape Town Fire and Rescue Service upon their return. Wehr said, "It was an honour and a privilege to participate in this international vehicle extrication challenge against the world's best. This is the first time a team from the Cape Town Fire and Rescue Service participated internationally. There were a few challenges but it was managed well and overcome. This is an experience, which will not be easily forgotten, hospitality of the Brazilian fire fighters towards the team and their assistance for making this experience memorable and what has been achieved on an international arena and being placed 18th out of the 30 teams. The networking between fire fighters from all over the world sharing experiences and ideas was just phenomenal."

Wehr continued, "The team did very well seeing this was their first international challenge, they were ▶

Cape Town fire fighters representing SA at WRO Extrication Challenge 2016, Brazil

Teams were expected to triage the casualties and identify the medical priority


Teams had to complete three rescue scenarios

- placed 18th from 30 international teams that participated in the WRO extrication challenge. Our incident commander was placed 13th overall out of the 30 incident commanders."

Scenarios

Extrication can be divided into three broad phases namely, casualty access, medical intervention and space making, extrication options for release and casualty packaging and pathway. Teams had to complete the following three rescue scenarios:

Complex rescue

Sufficient space needed to be created for medical assessment and intervention, with the casualties' release/packaging reflective to their mechanism of injury. Teams were expected to triage the casualties and identify the medical priority for extrication. To achieve success, teams were expected to work within the full three phases of vehicle extrication rescue to affect a thorough release and removal of both casualties.

Standard rescue

Teams were expected to assess the casualty and identify the correct pathway for extrication, whilst recognising the capability of the tools available. To achieve success teams needed to work efficiently and manage all the resources at their disposal to complete extrication of all casualties within the available time frame.

Rapid rescue (medical emergency)

Teams were expected to recognise the immediate lifesaving needs of the casualty. To achieve success, teams needed to demonstrate a balance between efficiency, safety and urgency to achieve the task within the prescribed time frame."

"The SA team gained some new skills and techniques with regards to other methods of extrication, which will be used in training sessions. As well as some experience and knowledge at this level of competition, which will now be shared amongst their colleagues, which will enable them also to respond to emergencies and render a more effective service and saving lives. This experience gave us a better understanding with regards to new vehicle technology and tools available on the market which can be used. We, in Cape Town, South Africa are also not that far off of the standard of vehicle extrication methods used in the world," said Wehr.

"The highlights of the event were a good team spirit amongst team for representing our country and the reception received at the competition for the first time. Another highlight was that we were the only country whose National Anthem was played on completion of their scenario and the team members singing proudly with the South African flag."

Wehr added, "The team would like to participate in the upcoming World Rescue Challenge in Romania on 30 September to 3 October 2017 and then come back and participate in our national South African Emergency Services Institute (SAESI) Vehicle Extrication Challenge. This will also be in preparation for the World Rescue Challenge when it will be hosted by South Africa in Cape Town in 2018."

"There were a few South African assessors, namely Neville van Rensburg and Julius Fleischman that were there too and for them. It was a proud moment to have a South African team participates at this level. They even hung the SA flag proudly in the pits while they were busy assessing. The team starts training soon and is looking forward to participating in the next challenge to apply the techniques and skills gained at this international challenge that was held in Brazil, Wehr concluded.

South African team competing in WRO Extrication Challenge 2016

South African team and WRO assessors on day of departure

SAESI Southern Cape
region annual banquet

By Heinrich Louw

The SAESI Southern Cape region held its annual banquet at the Stellenbosch Town Hall on 10 December 2016. It was indeed an auspicious occasion where fire chiefs, fire officers, fire fighters and their spouses and other dignitaries enjoyed a memorable evening together.

It was a beautiful summers evening and the hall was equally beautifully decorated. The organising team succeeded to transform the hall into a spectacular sight for attendees, making the evening even more memorable.

Fire brigade personnel proudly wore their ceremonial dress uniforms, shiny epaulettes, medals and shoes, highlighting the proud and long-standing tradition of the fire department.

Some of the special guests and delegates who attended the banquet included various fire chiefs, other fire service personnel and their spouses and the director community and protection services of Stellenbosch Municipality, Gerald Esau.

Delegates were welcomed with a cheese and wine buffet from 19h30 and were treated to a very tasty and appetising three course meal which was professionally presented and served.

Assistant chief fire officer, Angelo Aplon, presided over the formal event as the master of ceremonies. Regional and district chaplain, Daniel Solomons, opened the evening with prayer which was followed by the welcome address by the branch vice-chairperson, CFO Theo Botha. Director for community and protection services, Gerald Esau was the keynote speaker of the evening and was followed by an address by CFO Wayne Smith. The event also included the handing over of service medals for long service and for outstanding achievements.

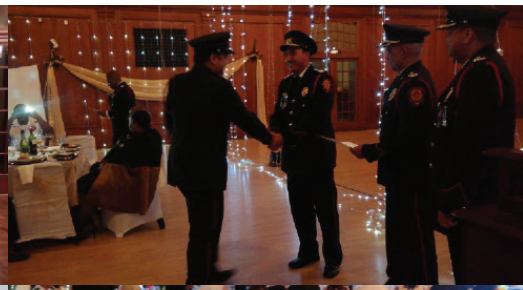
The following staff received medals and accolades with honour and pride:

- Fire fighter Gallie Badenhorst of Overstrand Municipality received the first award: 10 year service bronze medal
- Senior fire fighter Sebenzile Kiva of Stellenbosch Municipality: 10 year service bronze medal
- Station commander Zane Malan of Stellenbosch Municipality: 20 year service bronze medal
- Deputy chief fire officer Craig van Reenen of Stellenbosch: 20 year service silver medal
- Senior fire fighter Johan Rudolf van der Poel of Stellenbosch: 20 year service silver medal
- Shift commander Gustav Frederich Burger of Cape Winelands: 20 year service silver medal
- Senior manager (chairperson) Wayne Josias: 20 year service silver medal

The vote of thanks was delivered by senior manager and chairperson of the Southern Cape Branch, Wayne Josias, where after the floor was opened for dancing.

It was a highly successful and enjoyable event where the men and women who serve to keep our communities safe, were honoured and appreciated.









Pringle Bay Volunteer Community

Fire Station moves into new building

DC Joe Schoeman, DC Marlu Rust, CFO Lester Smith, Director of Protection Services Neville Michaels, station commander Clayton Frances, Mayor Rudolph Smith, DC Brian Lobb, Cllr Andrew Komani, traffic chief Rudi Fraser, Cllr Fanie Krige and Cllr Lindile Ntsabo

Pringle Bay, situated in the Overstrand area in the Western Cape, South Africa, has welcomed a new base for its volunteer fire department, which was established more than 20 years ago.

Overstrand Fire and Rescue chief fire officer (CFO), Lester Smith, said the new facility is a 'dream come true' for volunteer fire fighters of Pringle Bay. The fire station, the result of six years of planning, will be able to serve as a regional emergency centre and currently has five volunteers and one truck to assist with fires in Betty's Bay and Pringle Bay.

Clayton Francis, who runs the Pringle Bay Volunteer Fire Fighters, said it was a community effort over many years. The new double bay station covers an area of 150 square metres and includes a training room/board room, sleeping quarters, kitchen, small office and storage area. Pringle Bay Volunteer Community Fire Station is located in Buffels Road, Pringle Bay, next to the community hall.

Francis said, "I arrived here in Pringle Bay in 1994 from Upington. While in Pringle Bay I joined the volunteer fire fighters. Due to my background in the South African National Defence Force (SANDF), I had a good picture as to what to expect. We had a precast garage with a trailer, which had a skid unit on it. The best part was that whoever arrived first after a callout with a vehicle that had tow bar on, had to hook the trailer. The problem, however, was that our sand roads are not standard widths, so turning and reversing was challenging."

"Because of this, I put a request forward for a vehicle with a skid unit attached and we were given a Nissan one tonner, 2x4, with the capacity to carry 500 litres of water. This bakkie was given to us on 18 November 2003 and let me tell you, we fought many wildfires, house fires and attended many road accidents, we even fought fires out of our area."

"The problem started when the fires were too far in the veld and as the bakkie did not have 4x4 capability. We had to run out with many hoses, which caused the pressure of the water to drop. The other problem was the 500 litres of water because as soon as we had the fire under control ,we ran out of water thus leaving the scene to refill and everything flares up again especially when the wind is blowing, which is just about every day."

"So, we had a new challenge so I took it upon myself to find a suitable 4x4 vehicle, which had the capability of carrying more water and was equipped with 4x4 ability, which can take us as close as possible to the fire in the veld. And so on 14 October 2013, we received our Unimog. The Unimog served us

CFO Lester Smith official opened Pringle Bay Volunteer Community Fire Station

with fighting many wildfires, some not within our area .We were called out to Gansbaai, Stanford and Karwyderskraal. This Unimog is really a work horse. It has a top speed of 75 kilometres per hour and downhill at 85 kilometres per hour but as strong as an ox. The Unimog has been named Rocky as this was my nickname in the Defence Force."

"Finding a bigger vehicle was all part of a three-year-plan and the fire station was part of a five year plan. Our division commander, Marlu Rust, who is from the Overstrand Fire Department was at that time and still is in charge of the volunteer community fire fighters. He asked me for a three and five year plan, how do we see the way forward."

"Now, the three-year-plan was done and dusted and we had the vehicle but no station. Unfortunately, the five year plan became a six year plan but we do now have fire station for Rocky and our bakkie."

"The station itself was one heck of a challenge to build. Our three towns, Pringle Bay, Bettys Bay and Rooi-Els, gave up their allocated ward money to build this station as they could see the importance of a fire station in our area. Most of the time we are the first line of defence until the other fire trucks arrive. We must also remember that the fire station can be used for other emergency departments as we are positioned centrally between these towns."

"The station is 150 square metres in size, of which the two vehicle bays are 120 square metres with 30 squares, that consists of an office, kitchen and ablution facility. On top of the 30 squares we have sleeping quarters and a storeroom. On the one side of the number one bay we have a joint operational centre (JOC) as well as lecture facilities. We don't have any lockers at this stage, as we are volunteers so it easier for us to get dressed at home. Reaction time is of great importance. On the outside we have braai area and a training area of 150 square metres. In total we are seven volunteers in Pringle Bay and six volunteers in Bettys Bay," concludes Francis.

Pringle Bay volunteer fire fighters: Dave Mellet, Clayton Francis, Vic Brooker, Louis Rossouw, Jeff Owen

The new Pringle Bay Volunteer Community Fire Station

The interior of the fire station

Pringle Bay's Unimog

Mossel Bay fire fighter,
Nadia Julies, honoured

Julies receives Eden District Sport Awards 2016 with executive mayor of Mossel Bay, Alderman Harry Levendal

Julies demonstrates fire and life safety

The community builder award was presented to Julies

Julies is involved in various sporting events

Mossel Bay Fire and Disaster Management, situated in Mossel Bay, South Africa would like to pay tribute to Nadia Jacobus Julies, who selflessly goes above and beyond the call of duty.

"She is an inspiration and motivation to the young and old, whether it is at the fire station, church or schools in and around Mossel Bay. Everyone knows and loves her. She is a passionate fire and life safety educator as well as a team player, involved in the Cancer Association of South Africa (CANSA) projects, feeding schemes, shoebox projects and serves on the local school governing body. Additionally, she is a netball player and is involved in netball development, coaching and cycling development," said Samantha Alexander, platoon commander, Mossel Bay Fire and Disaster Management.

"Furthermore, Julies assists in completion of forms and application for birth certificates and spends hours at home affairs to submit forms, even after a 24-hour shift. She comes to the rescue for those in need of transport from the farming and rural Herbertsdale area, somewhat 50 kilometres outside the Mossel Bay Centre where she resides. She is a strong, humble and beautiful woman who works hard and has so much love in her heart for others," continued Alexander.

This year she received both the community builder award and the greater Eden District Sport Awards 2016. Alexander concluded, "I met her a year ago, when I relocated to Mossel Bay and was appointed as her platoon commander. She is a go-getter, who does not shy away from hard work. Julies is responsible for cohesion on the shifts as she initiates sporting activity. In addition, she is serious about service delivery. I am not sure if and how we can say thank you to her but this lady has truly got what it takes. I look up to her, as she makes a difference in all the lives she touches."

New wildfire units
for City of Cape Town

Six new Iveco Eco Daily 4x4 wildfire units for the City of Cape Town Fire and Rescue

The City of Cape Town has invested in six new wildfire units in time for the summer wildfire season. The units were built on Iveco 4x4 Daily chassis'.

Fire and Rescue International spoke to City of Cape Town's Willie Olivier regarding the investment. "The vehicles are specifically designed for the summer season for wildfires but could also be used in any fire situation. It is a small versatile vehicle, which can access places and areas that cannot be reached by conventional fire fighting vehicles," said Olivier.

Five of the units have been completed; three by Marcé and two by Fire Raiders while one is still being built. "The new Ivecos will mainly replace the old bush fire fighting vehicles," said Olivier. The vehicles were designed to get the maximum performance from the vehicle but to try and keep it as light as possible," he added.

"The units will be assigned to our seasonal fire fighters, who start on 1 December 2016 until end of May 2017. The reasoning behind this is to assure that the vehicles is available every day," explained Olivier. The vehicles will be spread throughout the city.

Specifications

Built on the Iveco Eco Daily single cab chassis with a 3-litre, 4 cylinder diesel engine with a power output of 146hp @3 000 - 3 500rpm; 350Nm @ 1 400 – 2 600rpm the units have a 6-speed synchromesh overdrive gearbox and a double reduction transfer box. ▸

The vehicles are specifically designed for the summer wildfire season

FireDos monitor and foam dosing proportioner delivered to petrochemical storage facility

This monitor has an adjustable flow rate from 5 000 to 40 000 litres per minute

Fire protection technology provider, DoseTech, has concluded the delivery of the first trailer-mounted FireDos foam and water monitor, combined with a FireDos foam dosing proportioner unit to the South African bulk fuel storage industry.

Mike Feldon, DoseTech's managing director, said during the handover that the concept has gained traction in the South African petrochemical industry with a second system already ordered. These units are perfect for quick and effective knock-down in the event of a major fire.

The design comprises a special FireDos foam and water monitor, combined with a FireDos foam dosing proportioner unit to ensure that the precise proportion of suppression foam to water, three percent in this case, is maintained regardless of the volume of water flow selected on the adjustable flow setting on the monitor depicted by the situation the operator is facing.

Feldon explained that the foam concentrate such as one percent, three percent and six percent was specified by the customer and forms part of a detailed analysis of the actual safety requirements. "Once the foam has been selected, the FireDos foam-dosing pump is designed to ensure that the amount of foam concentrate added to the water flow remains proportional throughout the operation."

"Maintaining this constant foam/water flow is beneficial in terms of successfully fighting fires and significantly reducing the cost when

The units are fitted with a 1 200 litre hot-dipped galvanised mild steel water tank equipped with an external water level tube indicating the water level. A Protek remote controlled electrically operated multi-purpose monitor is mounted above the rear of the water tank offering 300 degrees horizontal and 135 degrees vertical travel with flows of up to 1 900lpm. There are two lockable storage compartments, one on each side of the vehicle.

A mid-mounted Hale CBP single stage high volume centrifugal fire fighting pump with directional step-up gearbox is driven by a gearbox-mounted power take-off (PTO).

Pump performance

- Flow rate: 1 325lpm @ 150 psi 10,3 bar
- Max flow: 1 515lpm
- 662lpm @ 250 psi (17,2 bar)
- Max pressure: 27 bar

A Davey twin-stage self-priming fire fighting pump with a 13hp Honda electric start petrol engine is fitted at the rear of the vehicle between the two hose reels. The pump can draft water from an open source up to 6m.

The units are fitted with two manual rewind hose reels, one with 30m by 20mm diameter non-collapsible high pressure hose, second hose reel, dry reel fitted with 7 x 30m 25mm lay-flat hose both using TFT 1040 selectable flow jet/spray pistol grip nozzle.

Training

Olivier added, "The fire fighters needed extra training to use the units as the vehicles have a very complex transmission system and our training academy will have to do a conversion course with the drivers. To be able to undergo this conversion course, you need to be a qualified 4x4 heave response driver.

Olivier and station commander Patrick Muir did extensive research on medium bushfire fighting chassis for the last couple of years. "We then research the Iveco Daily 4x4 extensively before they were introduced into South Africa. When word was out that it is coming we had our specs on the table, we went out on tender in 2014 but the tender was not awarded and we had to go out on tender again."

providing correct volume of foam concentrate, in addition this ensure that the foam stock related to the due diligence planning is achieve" he added. "The FireDos foam dosing pump is designed and tested to meet exacting requirements and forms part of the total system, which also includes the FireDos monitor," Feldon stated.

FireDos monitor Model AMPN-9

This particular monitor model has an adjustable flow rate from 5 000 to 40 000 litres per minute. The unit supplied for this project is capable of delivering foam and water at a rate of between 5 000 litres per minute and limited to 22 000 litres per minute with a projection rate of up to 120 metres.

The FireDos monitor has 360 degree of horizontal movement and between - 90 and +120 degree in the vertical plane limited to +30 off the horizontal for safety reasons for this project. It is fitted with a combine fog and stream nozzle for either cooling or vapour-suppression applications. A removable foam aspiration tube is available as an option. The innovative oval-flat design of the monitor ensures that the reactive forces are practically eliminated; therefore, no additional ballast is required to keep the unit stable during operation.

The water motor and proportioning pump are connected with each other via a coupling and therefore operate at the same speed. A purely mechanical system, which regulates itself automatically: The more extinguishing water that flows through the water motor, the more extinguishing agent is added and vice versa. The proportioning rate selected by the user always remains constant.

FireDos proportioner Model FD-20000/3-PP-S

The FireDos proportioner works without external energy and even under changing pressure conditions reliably and at a constant proportioning rate. "The FireDos proportioner is driven solely by the extinguishing water flow. No emergency electrical energy or engine-driven prime mover is required. The purely mechanical system is highly reliable," explained Feldon.

The drive is provided completely by the extinguishing water flow. The water flows through the water motor, which is installed directly in the extinguishing water line. The extinguishing water flow is therefore available in full for fire fighting, without losses. The speed of the water motor is proportional to the volume flow rate of the extinguishing water.

The unit incorporates water and foam manifolds that allow for connection to multiple hydrants

He commented that a portion of the pressure in the extinguishing water line is used as an energy source to drive the water motor. "While hydrant pressures of 10 bar is usual, the unit can safely accommodate a maximum water pressure of 16 bar and higher pressure if required." Further, the self-priming proportioning pump can deliver fluorine-free viscous and/or alcohol-resistant foam agents without requiring additional modification.

The unit incorporates water and foam manifolds that allow for connection to multiple hydrants through a standard-sized fire hose, while the foam manifold permits the coupling of more than one foam tank, which is necessary during prolonged operation and prevents downtime during foam tanker change over.

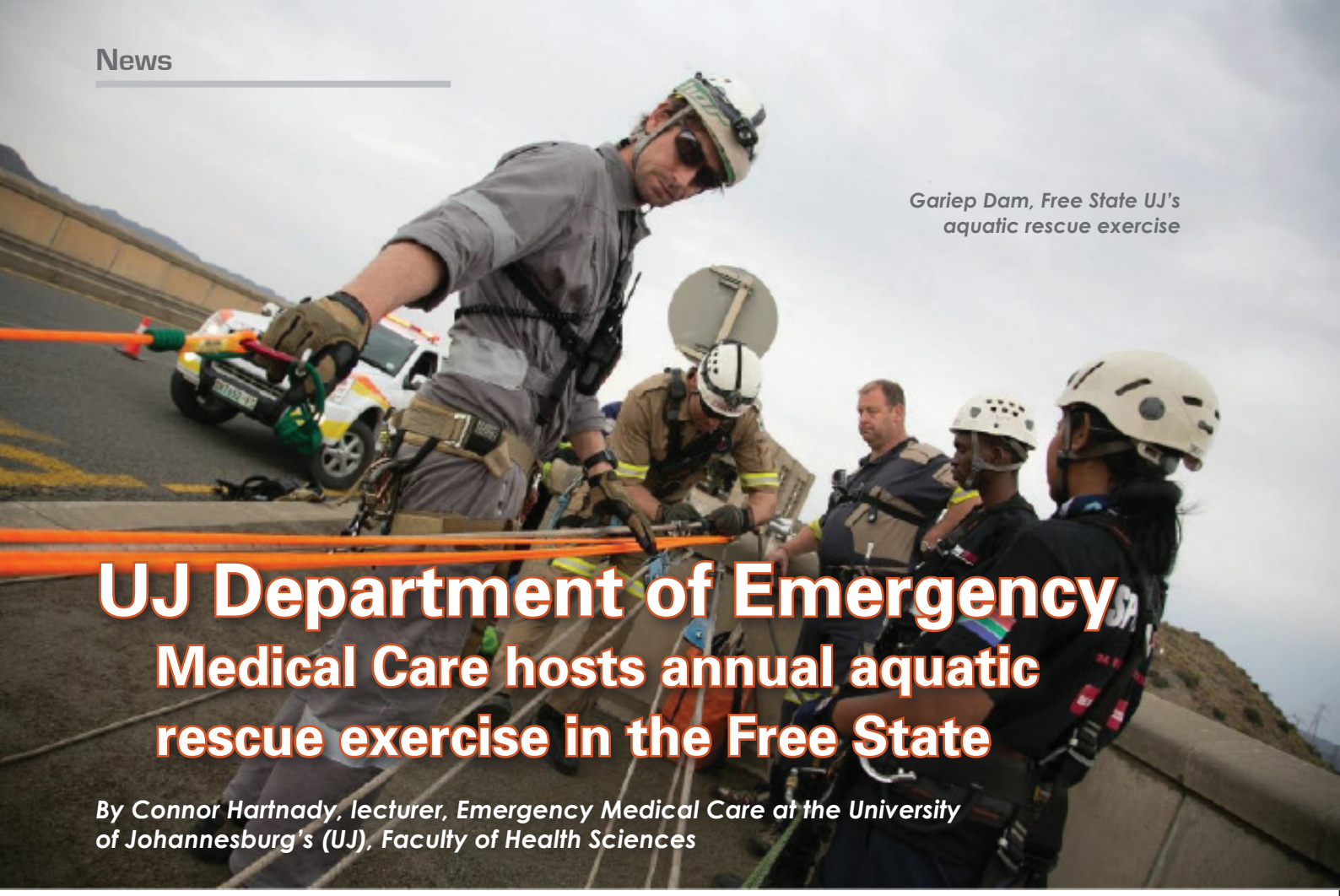
Specifically designed for the protection of fuel storage tanks, the unit is one of the most advanced fire fighting products available and the first of its kind on the continent, according to Feldon.

"The FireDos unit is built to last, as it is constructed from high-quality aluminium-coated metal components and materials. All pressurised cast parts are designed for a test pressure of 64 bar and although the unit has a mass of four ton, it can easily be pulled by the average one ton pickup truck," he added.

The units are custom designed and manufactured according to the client's specific requirements by German-based FireDos GmbH and supported and serviced by their business partner DoseTech. Prior to delivery, the units are factory tested in Germany to ensure that they meet the customer-specific performance and quality assurance requirements.

The units meet European and international fire safety standards. They also comply with requirements set out by third party testing and certification organisation FM Global Group approval; independent German fire protection and safety organisation, Vertrauen durch Sicherheit and European Union directive ATEX95, which outlines requirements for equipment and protective systems for use in potentially explosive atmospheres.

Feldon said that the unit supplied to a local South African petrochemical storage facility is unique, as each unit is built according to customer and application requirements because they vary depending on the location, type and layout of the refinery or storage facility and national or international product and safety standards.



Gariep Dam, Free State UJ's aquatic rescue exercise

UJ Department of Emergency Medical Care hosts annual aquatic rescue exercise in the Free State

By Connor Hartnady, lecturer, Emergency Medical Care at the University of Johannesburg's (UJ), Faculty of Health Sciences

On 2 September 2016, the Department of Emergency Medical Care at the University of Johannesburg (UJ) in South Africa held its annual aquatic rescue exercise at Gariep Dam in the Free State.

What historically started off as the practical component for a small boat handling module in the past, has now evolved into a seven-day event that exposes emergency medical care students to high fidelity, simulated rescue and emergency medical scenarios in austere environments. Hosted by UJ, this year saw two local universities, an international university, a provincial emergency medical services (EMS) training college and a provincial EMS helicopter service join forces to provide the longest and most challenging aquatic rescue event thus far.

Patient was packaged appropriately to continue the neuroprotective strategies

Day one was mainly made up of travel, logistics and the setting up of the camp site to sleep and cater for 85 people. Day two was an opportunity for the students to learn how to launch and pilot a number of different rescue boats and jet skis. Students were also taught how to recover conscious and unconscious victims onto the boats using different techniques.

As night fell, the students donned wetsuits, personal floatation devices, helmets and strobes as they began their two kilometre survival swim in 11 degrees Celsius water, with windy and rough conditions.

Day three was a rest day that allowed the students and facilitators to prepare their medical and rescue equipment for the different scenarios that would take place over the next three days. Predetermined groups of eight students rotated through the scenarios and were assigned different roles, such as team leader, lead rescue, lead medical and rescue crew. Outcomes for each of the scenarios were distributed to each team and gave a detailed overview of the expectations for each phase of the rescue.

The first scenario was an aquatic search and rescue, where the teams needed to search for an overdue canoeist that had gone missing on the dam. Through appropriate interviewing techniques and a coordinated search on the water, the patient was found on an island on the dam. The patient was experiencing chest pain and the crews had to provide the correct intervention for the presenting acute coronary syndrome. The patient was then packaged and transferred onto the boat before being transported the field medical post.

The field medical post was made up of two inflatable tents and formed another of the scenarios. Patients were brought to the field medical post, triaged, a continuum of care provided and then prepared for transport to definitive care.

Two scenarios took place on the dam wall and involved the use of high angle rescue techniques. In one of the scenarios, emergency medical and rescue crews needed to access a patient that had sustained a simple lower limb fracture at the bottom of the wall. Access was through a 90-metre descent down the dam wall. The patient required administration of analgesia and procedural sedation before splinting and packaging. Once the patient had been packaged, mechanical advantage systems were used to haul the patient and lead medic to the top of the wall while negotiating a difficult edge transition. The patient was then transferred to an awaiting ambulance and moved to the field medical post.

Administration of analgesia and procedural sedation before splinting and packaging

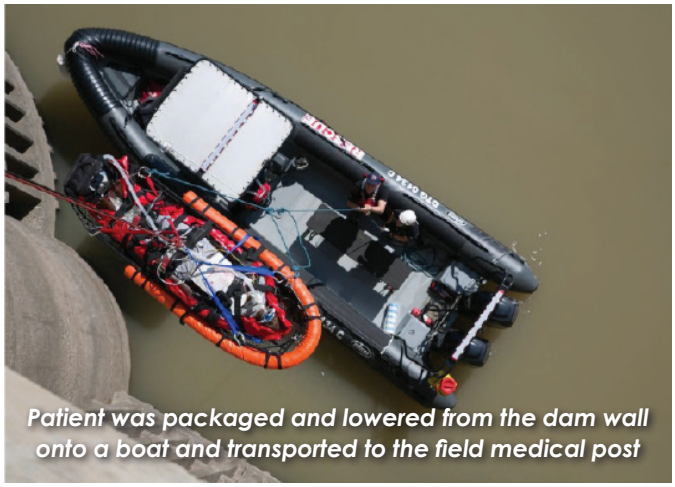
Confined space rescue

The other scenario on the dam wall was a confined space rescue of a patient that had sustained an inhalation injury after a flashover in the pipe that he was welding. The extent of the inhalation injury was significant and required formal airway ▸


Free State Provincial Helicopter Emergency Medical Support (HEMS) unit was used to transport the patients

Preparing patient for transport


Two kilometre survival swim


Patient was packaged and lowered from the dam wall onto a boat and transported to the field medical post

management by the placement of an endotracheal tube and then mechanical ventilation. Besides rapid sequence intubation and ventilation, correct intravenous fluid management was also an outcome for the scenario. The patient was then packaged and lowered from the dam wall onto a boat before being transported to the field medical post.

Advanced airway management by intubation and subsequent mechanical ventilation were also carried out on the scenario that required access using all-terrain vehicles. The patient was ejected off a quadbike and sustained a traumatic brain injury. Once the interventions had been carried out, the patient was hauled up a slope using low angle rope rescue techniques and the patient was packaged appropriately to continue the neuroprotective strategies. The all-terrain vehicles then transported the patient on rough terrain to the awaiting ambulance where he was taken to the field medical post.

The last scenario was a wilderness search and rescue for two missing adventurers that had been overdue for 24 hours. The only access to the area was by boat. Once the victims had been located, it was evident that one was a patient experiencing a severe allergic reaction after being stung by bee. Immediate emergency care was administered before the patient was transported back the field medical post.

On the second day of the scenarios, the Free State Provincial Helicopter Emergency Medical Support (HEMS) unit was used to transport the patients from the various scenarios back to the field medical post. This provided students the opportunity to prepare the landing zones for the aircraft and the lead medic to continue care by flying with the patient back to the field medical post.

Professor Craig Lambert, head of the department of emergency medical care at the University of Johannesburg added, "From my perspective the event was an excellent opportunity to showcase the third year students. It was particularly pleasing for me to see how they coped with the significant challenges each of the scenarios posed. Their ability to bring together the medical treatment with the rescue techniques within a real world setting is testimony to the quality of instruction and education they receive at the University. The event also provided a chance for networking between participants and rescue instructors from the participating role-players. In this regard I wish to acknowledge the ongoing professionalism, support and commitment of the Free State Department of Health and their well organised team of educators from the provincial college. I am already looking forward to next year's event where we hope to again offer this unique experience to the new cohort of third year students."

Many thanks to the participants from the University of Johannesburg, Durban University of Technology, SAIMAA University of Applied Science (Finland), the Free State College of Emergency Care, Free State Department of Health, Central University of Technology and Halo Aviation.

Photo credit: Tommi Ulmanen

ECUFPA hosts ICS for executives' seminar in Eastern Cape

ECUFPA hosted an ICS for executives' seminar in Bhisho

The Eastern Cape Umbrella Fire Protection Association (ECUFPA) held its first incident command system (ICS) for executives' seminar in the Eastern Cape South Africa on 4 November 2016.

ECUFPA has always had the vision of getting all stakeholders throughout the Eastern Cape Province to accept and use ICS, so that when disaster strikes, whether it is wildfires or any others, a coordinated multi-agency approach can be taken to respond to the incident. This would allow and enable all the stakeholders involved in an incident to work together effectively and efficiently because everyone would know and 'talk' the same 'language'.

Although numerous ICS training courses have been arranged and presented by ECUFPA, majority of them with assistance from United States (US) facilitators throughout the province, it was felt that the upper senior management and/or executive decision makers within various stakeholders need to be targeted, so as to grow ICS and its use amongst these stakeholders. This is where ICS for executives comes into play, as this course is designed for executives, administrators and policy makers. It introduces the ICS concepts and provides an orientation for executive understanding and participation in ICS. This course describes the history, features and principles and organisational structure of ICS, including relationships between the incident commanders and organisation and/or agency executives.

As such, when ECUFPA was approached by the SA ICS Working Group (SA ICS WG) and asked what training they would like to ask their USA counterparts to present in November 2016, they secured the opportunity to present the ICS for executives' seminar. This seminar was the first of its kind to be presented by USA facilitators in South Africa, which is a major achievement for the Eastern Cape.

It was decided that, due to the extreme importance of this seminar and the goal that ECUFPA would like to achieve with ICS, they needed to target as many stakeholders as possible. ECUFPA had the necessary backing and support from the Eastern Cape Provincial Disaster Management Centre (EC PDMC) but also ▸

New from Kestrel
fire weather meters

Every fire fighter knows that wind, temperature and humidity drive fire behaviour and that safety and effectiveness require accurate, up-to-the-minute knowledge of conditions. Tracking changes in wind speed, humidity and temperature is crucial for predicting fire behaviour and keeping fire fighters safe. The new Kestrel fire line now includes models with built-in probability of ignition (PIG)

- engaged with the Eastern Cape Department of Rural Development and Agrarian Reform (DR DAR), as they have taken a keen interest in ICS and have similar goals to ECUFPA with regards to ICS.

Together, ECUFPA and Eastern Cape Department of Rural Development and Agrarian Reform set out to canvas attendees and arranged two venues, for two simultaneous sessions, one at the EC PDMC boardroom in Bhisho and the other one at the Eastern Cape Rural Development Agency (ECRDA) boardroom in East London.

ICS for executives' seminar in East London

Eric Kurtz, USA facilitator from Montana who is a retired battalion chief and hotshot from California Department of Forestry and Fire Protection (CALFIRE), did the presentation in East London, while Keith Woods, USA facilitator who is also from Montana, Missoula Smokejumper and works for the US Forest Service, did the presentation in Bhisho. For the East London venue, ECUFPA was fortunate to have Dr Ivan Lwanga-Iga, manager: early warning and disaster risk management and Dr Lubabalo Mrwebi, chief director: veterinary services, both from DR DAR, to do the welcome and keynote address. Pieter Smit, from Stenden South Africa's School of Disaster Management, did the keynote address at the Bhisho venue.

Stakeholders from various spheres of government were present at the seminars, such as DR DAR, ECDRA, Cooperative Governance and Traditional Affairs (CoGTA), Department of Health, South African Police Service (SAPS), Transnet, South Africa National Parks (SANParks) and district municipalities, together with the private sector, namely, Amathole Forestry Company, CJ Rance and Agri Eastern Cape.

ECUFPA would like to extend our appreciation to DR DAR for their assistance as well as to the USA, US Forest Service and United States Agency for International Development (USAID), for making this possible.

and fine dead fuel moisture (FDFM) measurements along with every key fire-related environmental measurement as well as small, waterproof data loggers that leverage mobile connectivity to provide hands-free conditions for reporting and monitoring.

Kestrel DROP D3FW Fire Weather monitor

The Kestrel Fire Weather DROP can be deployed in seconds to begin capturing data from the start of the fire. DROPs are so small they can easily be clipped to a pack or belt loop and so affordable they can be placed in multiple locations to provide unmanned monitoring. The DROP is powered by LiNK wireless data connectivity and the LiNK iOS and Android App allowing for remote view of DROP readings as well as hands-free automatic data upload for review whenever the opportunity presents. A Kestrel DROP D3FW is the perfect tool to track conditions and trends on a burn site or wildfire. Just leave it in place to log temperature and humidity round-the-clock to plan the best time to put fire on the ground or understand the round-the-clock weather patterns on a fire.

Kestrel 3500 FW Fire Weather Meter

The improved Kestrel 3500 model includes an easy to read and laminated PIG card, wet bulb temperature, altitude and barometric pressure.

Kestrel 5500FW Fire Weather Meter Pro

The Kestrel 5500 Fire Weather Pro offers users all the environmental data they need to make informed decisions. This unit includes a compass, PIG, FDFM and many other environmental measurements and can be used hand-held or mounted on a tripod in the vane mount accessory. The Fire Weather Pro also provides on-screen graphing of history, enabling better visibility of environmental trends and more intuitive fire behaviour prediction. The Fire Weather Pro is also available with the optional LiNK wireless connectivity, allowing you to view and share readings and graphs remotely on your mobile device or PC, as well as export the entire data log quickly and easily.

Kestrel 5400FW Fire Weather Meter Pro

The Kestrel 5400 Fire Weather Pro WBGT is your all in one heat safety meter and weather station. Lightweight and easy to use, the unit offers quick set-up with the included vane mount to become a complete weather station capable of logging weather conditions and critical heat safety information. The Kestrel 5400 also provides WBGT monitoring for training exercises, helping to prevent personnel injury or fatalities from heat exposure. With the use of LiNK wireless connectivity, the Fire Weather Pro WBGT seamlessly sends current and logged weather conditions and heat safety alerts directly to your mobile device, keeping you and your crew informed, prepared and safe.

Kestrel is available in South Africa through CW Price.

Groblersdal Fire Station
vehicle handover, Sekhukhune Municipality

Chief fire officer, Abby Skhosana, Groblersdal Fire Station

On 30 September 2016, Groblersdal Fire Station acquired 12 fire fighting vehicles by service provider, Amasondo Fleet Services. The 12 vehicles consist of four rapid intervention vehicles (RIV) and eight grass tender units.

Marcé Fire Fighting Technology manufactured and kitted the fire fighting vehicles for Amasondo. The vehicles are Toyota 4x4 Land Cruisers with 4,2 diesel engines. The RIVs are equipped with a water tank of 350 litres and foam tank of 25 litres. The pumps on both the RIVs and skid units are high pressure pumps flowing 42 litres per minute with foam induction capabilities. The rapid intervention vehicles are equipped with lockers with slide out shelves and two robotic light masts with 40 Watt light-emitting diode (LED) lights. The skid units have a 500 litre water and 25 litre foam capacity. Additionally, the skid units are fitted with rear lockers and wildland fire fighting equipment. The maintenance plan will lie with Amasondo but Marcé will execute the work on the fire fighting components.

Executive mayor of Sekhukhune District Municipality, Stanley Ramaila said, "We should also explore naming some of these vehicles after our liberation heroes and heroines as a way of honouring them. As a starter, one of our big fire fighting trucks can be named after Flag Boshielo, to symbolise his bravery and selflessness. One of the rapid intervention vehicles can be named after George Squirrel Mashigoane for example, to symbolise his courage and agility."

Ramaila said that this was the largest acquisition of fire fighting vehicles in Sekhukhune District Municipality and that future plans intend to see substation within the region converted to formal facilities such as Groblersdal Fire Station.

Ramaila concluded, "We call upon our Magoshi, members of the media and civil society to help us monitor these vehicles and ensure that they are used for their sole purpose of service delivery. I want to thank our management and Amasondo Fleet Management for ensuring that we bring this day to reality."

Mayor Stanley Ramaila and Ndaba Mhlangu, national manager, Amasondo Fleet Services conclude official handover of vehicles

A rapid intervention vehicle during a demonstration

Hazardous materials:
flammable liquids, UN class 3

By Colin Deiner, chief director, disaster management and fire brigade services, Western Cape Government

Zhangzhou chemical plant fire China 2015

This month we continue our series on hazardous materials where we will deal with flammable liquids. Flammable liquids and, in particular, petrochemicals in their various forms present more risks than just flammability, however, we will deal specifically with that risk here. Due to the large scope of flammable liquid incidents, I will focus only on fixed installation fire fighting operations in this article. Road and rail related incidents will be covered in future articles.

Responding to petrochemical incidents such as fires in refineries, terminals and bulk storage depots or tanker truck (or rail) incidents are significantly different for the municipal fire department than the usual structural fire or freeway accident. Despite the various types of hazardous products present in a storage facility, the quantity of product will most likely pose the biggest challenge. You could be dealing with anything from a few hundred litres to several hundred thousand litres.

Classification

Un Class 3: Flammable liquids cover those products which:

- Are liquids at 20 degrees Celsius and at a pressure of 101,3kPa with a melting point or initial melting point of 20 degrees Celsius or less at a pressure of 101,3kPa
- At 50 degrees Celsius have a vapour pressure of not more than 300kPa
- Have a flash point of not more than 60 degrees Celsius

The following products are also included:

- Liquid substances and molten solid substances that have a flash point of more than 60 degrees Celsius that are transported while heated at temperatures equal to or higher than, their flash point.

Venezuela Puerto La Cruz refinery fire 2013

- Liquid desensitised explosives. These are explosives that are dissolved and suspended in water or other forms of liquid to form a homogeneous mixture which suppresses its explosive properties.

The risk (where)

Due to the massive industry, flammable liquids can be found in a range of locations and processes; from fixed installations to roads and rail systems and on the oceans. Some of the most common locations include (not exhaustive):

- Oil refineries and processing facilities
- Storage tanks
- Tank farms
- Road tankers
- Rail cars
- Pipe lines

In their various configurations, flammable liquids can produce a number of different risks. These risks are generally dependent on the way in which they are stored, processed and transported. These include:

Explosive hazards

If the right conditions are present, flammable liquids can produce a number of devastating reactions that will happen suddenly and cause loss of life and damage on a large scale.

The first type of explosive risk we will look at is the unconfined vapour cloud explosions (UVCE). When a flammable vapour is released, its mixture with air will form a flammable vapour cloud. If ignited, the flame speed may accelerate to high velocities and produce significant blast overpressure.

A confined vapour cloud explosion (CVCE) occurs when a flammable vapour ignites within a confined space eg process vessel. This could happen inside an empty vessel, which has not been purged of any residual vapour. Should any form of flame be introduced into the space such as welding or exothermic cutting, it could lead to a sudden and rapidly progressing ignition, which could cause an over pressurisation in the vessel and resultant destruction of the container.

Although it is more commonly associated with liquid petroleum gas, a boiling liquid expanding vapour cloud explosions (BLEVE) can occur in any situation where a vessel containing a liquid is heated to a temperature substantially higher than that liquid's boiling point. The vapour that is propagated by the boiling liquid increases exponentially in pressure and, if not adequately vented, causes a catastrophic failure of the vessel with disastrous consequences. Should sufficient liquid still be present in the vessel at the time of the explosion, this could turn the vessel into a missile that can be propelled over a great distance destroying everything in its path. The resulting expanded gasses that are suddenly exposed to the atmosphere after the rupture, will in all probability ignite when it comes into contact with the flame source and cause a massive vapour cloud explosion, which could then, especially in a storage facility, cause a number of secondary fires.

Fire hazards

In the early days of the petroleum industry, storage tank fires were common. As the industry matured it demanded better design, construction, fire protection and improved legal compliance, which led to the development of better codes and standards. This all led to a decrease in the prevalence of tank fires. It is interesting, however, that although the fires decreased, the size of the storage tanks increased. The fewer fires now have a larger potential for a disastrous situation with a larger risk of financial impact, environmental damage, loss of business and property damage. The resources needed to deal with these fires are also more vast and specialised.

Flammable liquid bulk storage tanks are classified by their roof construction. The type of storage tank is dependent on the characteristics of the product and the location of the tank. Combustible liquids are stored in cone-roof tanks while flammable liquids are stored in floating-roof tanks in bulk quantities. In smaller quantities, such as service stations, flammable liquids are stored in smaller underground tanks or in low-pressure horizontal or vertical tanks.

Storage tanks will have the following fire risks:

- Overfill ground fires (bund fires): These fires generally occur due to operator error or an equipment malfunction that result in piping- or tank-leakage and are common in fixed-cone roof, internal and external floating roof and domed roof tanks.
- Vent fires are normally associated with fixed roof tanks ie cone roofs or internal floating roofs and is characterised by ignition at the vent area, sometimes caused by lightning
- Rim-seal fires comprise the majority of fires in external floating roof tanks although they have occurred in internal floating roof tanks. Lighting is a major fire risk here although, provided there has been no collateral damage, these fires are generally quite easily managed by well-designed fixed fire protection systems.
- Full surface fires will occur in fixed-cone roof, internal floating roof or external floating roof tanks. They pose the extra challenge of having to access the roof to reach the fire in the case of the fixed-cone roof. A

full surface fire in a floating roof occurs when flooding or pontoon failure causes the floating roof to sink thereby exposing the entire surface, which is then exposed to the fire.

Boilover, frothover and slopover

A boilover is a sudden violent ejection of crude oil (and other liquids) from a tank due to a reaction of the hot layer of the product with water that has accumulated at the bottom of the tank. This happens when a fire on the tank surface is gradually heated throughout its volume. When this heated layer makes contact with a volume of water that accumulates at the bottom of the tank over time, it will cause a rapid formation of steam (1 700:1) and, as a rule of thumb, expel the oil to ten times the tank diameter around the tank perimeter. A frothover occurs when water boils under the surface of a hot viscous oil that is not on fire such as hot asphalt introduced into a tank which has an accumulation of water of the bottom. A slopover occurs when water is applied to the surface of burning oil. This causes the burning oil to slop over the tank sides.

Other hazards

The general design and construction of petrochemical facilities makes any type of response more challenging. These facilities can be very congested with limited access routes. Responders will encounter a number of obstructions such as piping and other above ground structural elements. Most of these facilities are very congested. The security arrangements in such facilities could provide a further obstruction for fire fighting vehicles and equipment.

Although some facilities could be well staffed during daylight hours, they are not staffed at night, which could lead to more complications if an incident occurs at night. Depending on the type of facility, it may not be staffed around the clock and in some pipeline facilities they may not be staffed except during maintenance operations. In other facilities, operations are monitored and controlled by a remote master control centre.

Some of the more common other risks include, high noise levels, activated pressure relief systems, flaring operations, high temperature processes and high-voltage electrical systems. You could also be working on a fire or other emergency in close proximity to pressurised process, storage or cryogenic vessels. The presence of chemicals and fuel additives will always pose the additional risk of a potential for a secondary hazardous materials (hazmat) incident.

Management of incidents in petro-chemical facilities

The description of the hazards mentioned above makes it clear that dealing with a fire in a petrochemical complex is vastly different from your normal structural fire response. The type and significance of the fire/hazmat risk could vary from one facility to another. It is therefore important to ensure that your pre-incident planning should include an inventory of the types of products in any facility within your response area as well as their hazards and positioning. It might be necessary to consider employing large water streams for exposure protection in some areas, which will have an impact on the water supplies available for fire fighting. You would want to know this in advance.

Ohio oil refinery explosion 2015

Larger facilities will generally have their own fire service on site. This is the case in most refineries and in many large storage facilities. In some cases the services are professional brigades that employ trained fire fighters on a 24/7 basis. In other cases you will find that people employed for other jobs eg process workers, security are utilised as fire fighting teams. These teams should not be underestimated. Some of the best fire fighting teams you ▶

177 fire trucks and 929 fire fighters were deployed at the Zhangzhou chemical plant fire

- can find are 'volunteer' units as they take a lot of pride in their group and in terms of the employer's health and safety policies undergo advanced fire training.

The fire protection systems at bulk petro-chemical facilities are generally highly advanced and may include fixed foam systems, deluge systems, and fixed turret monitors. Larger facilities will also have dedicated fire water systems with tanks and pumps, advance monitoring and on-site fire fighting apparatus. In such facilities the incident command function will most probably be performed by the facility's fire chief and the municipal brigade will act as a support service.

Incident command

The incident command arrangements for an 'on-site' petrochemical incident should be clearly detailed in advance. If the incident is of a significant magnitude, you could have a rapidly increasing number of responders within the first few hours of the incident. The incident command system (ICS) must be able to escalate accordingly. The expanded layout of a petrochemical facility will necessitate a division format of operations. Support functions such as foam supply, water supply, and crew decontamination must be established as sectors or groups. Also ensure that sufficient space is afforded for level I and II staging areas. A large response from outside services will include different types of vehicles and it will be necessary to prioritise the units, which might be needed for immediate deployment and make then most accessible.

A large petrochemical facility fire will include a wide range of stakeholders and the liaison officers within the system must be prepared to cater for the needs and interests of these groupings. This might include environmental and natural resources agencies, utilities departments such as water and electricity and various levels of governmental agencies. If the facility is bordering on a residential area or is situated in a commercial zone, it will also be necessary to provide timeous information to your neighbours. It might be necessary to consider evacuation of certain areas or shelter in place options. A consistent and accurate indication of events and interventions is very important when dealing with these various groups.

It is necessary that liaison with the plant process controllers is established early and maintained throughout. The site process operations such as shutting down certain areas, closing valves or transferring product could assist the fire fighting operation and it is therefore important that constant communication between the facility engineers and fire department is maintained.

Initial operations

The initial size-up of a petrochemical fire will have several aspects that would apply to a standard large structure fire but will include a number of process related issues.

As with any fire, the first few minutes spent doing the initial size-up is critical in plotting the course of action that will follow and ultimately determine the success (or failure) of the fire fighting effort. The size and complexity petro-chemical facilities make it difficult for a thorough size-up to be performed rapidly. It is therefore important that the assessment be done by someone who understands the specific area involved. What might be conceived as being a major incident initially could be dealt with by focussing all your resources on the origin of the fire and quickly controlling it therefore preventing a catastrophic fire. It might be as simple as isolating a certain storage tank or pipeline by turning off a valve.

Incident command should attempt to get as complete a view of the incident as possible. This can best be achieved by deploying a group of fire fighters accompanied by process specialists. This initial assessment should attempt to identify the source of the fire, identify the type and volume of products involved and gain knowledge on the immediate hazards in the affected area. The recon team should also identify ingress and egress routes from the incident location and identify any exposure concerns. The operation of any fire suppression systems currently active should also be appraised.

Zoning

Once a clear picture of the incident has become available, the next priority should be to establish zones of control; the entire affected area should be off limits until the initial assessment has been completed. In real life you will probably have a fair number of people already in the designated hot zone. These could be plant fire fighting teams, freelancing process workers or disoriented individuals. These non-essential personnel must be moved to a place of safety. If the plant fire crew is making progress in controlling the fire, it might be necessary to support their efforts by bringing in additional crews or replacing them with fresh resources.

In the petrochemical environment, the hot zone will initially be very large and as the incident progresses, will contract accordingly. The complex layout of the facility might make the control of entry and exit in and out of the hot zone difficult. Having a single point of entry and exit might address this concern. Factors such as changes in wind direction, pressure-relief valve activation, collapsing structures and other unforeseen problems would necessitate the rapid expansion of the hot zone and all sectors must be prepared for this. An on-going size-up will be necessary throughout the operation.

Virtually all modern facilities have a range of security cameras located at strategic points around the facility. These cameras can be a valuable tool for incident command to determine the course of the incident.

Remember at all times that every incident is a hazmat incident until proved otherwise. Make sure that all products involved in the fire must be clearly identified and the necessary precautions taken to protect personnel from harmful exposure.

Venezuela: Guaraguao Oil Refinery fire November 2016

Exposure protection

Protecting exposures must be a major tactical objective. Providing sufficient cooling for critical equipment is essential to help keep the incident from worsening or equipment may fail and rapidly increase the hazard level and fire potential. Instrumentation or electrical systems such as cable trays and major distribution systems could rapidly fail whereas pressurised vessels that are exposed to extreme heat could lead to BLEVE in a few minutes. Supporting structures will also fail if exposed for too long causing them to collapse. Significant volumes of water and extra resources might be required to protect these exposures.

Although there are certain indictors for cooling streams, the best indicator of success in cooling exposures is to observe the impact of the water on the exposed surface. If it is turning into steam, you are not cooling it down adequately. The moment the water is cascading off the exposure who have been successful. It is important to gain the advice of the process controllers regarding the types of vessels involved in the fire. If a water stream is applied to a component that is designed to operate at high temperatures, the resultant rapid cooling effect could cause a contraction of the materials and a possible violent release of product.

Incident types

Petro-chemical fires can be encountered in two broad types, the surface fire or a pressure fed fire. The surface fire will normally be encountered inside a vessel or bund, however you could also have a running flammable liquid fire that is not confined and will present an additional set of hazards. Fuel might flow under sensitive process areas or into low lying areas and cause fires to star in remote locations. In the flammable liquid environment, a pressure-fed fire is typically fed by liquid escaping under high pressure. You could also have the situation where a failure on a pipe rack might cause a leak expelling liquid at high pressure, which then come into contact with a heat source and ignites. The resultant fire could come into contact with a vessel and also ignite its contents. You then have a combination of fires, which require rather different methods of extinguishing.

The most common method of extinguishing a pressure-fed fire is to isolate the source, which can be done by a remote-control valve being shut off from a remote position. It might, however, happen that the fire is in very close proximity to the shut-off valve assembly and might be necessary to approach the fire and, by utilising fog streams, 'bend' the fire away from the shut-off valve whilst sending a fire fighter in to manually isolate it.

Fire fighting considerations

The first fire fighting consideration should be to determine the type of fire ie vent, rim-seal, piping, tank overfill, bund or full involvement of multiple tanks. This will in turn determine the resources required as well as the incident action plan to be implemented.

Weighing up the risk in relation to the benefit that can be gained from a particular strategy is important. It could be necessary to employ a strategy of non-intervention when the risks associated with taking any actions are unacceptable. Withdrawing to a safe area and monitoring the incident while addressing the environmental risk might be the best option.

A defensive strategy will entail protecting exposers and limiting or preventing any further fire extension. An offensive strategy would require positive and direct tactics to control the incident and ultimately extinguish the fire.

The importance of pre-planning for large scale flammable liquid fires is key

- The initial fire fighting strategy at a large petrochemical facility fire will be a defensive operation whereby teams will try to contain the fire and prevented from spreading. Once the initial size-up has been completed the decision can then be made to continue in a defensive mode or to implement an offensive/supported operation.

  The main priority will always be the rescue of any trapped/injured victims and if this is the case your first-in units will have to be dedicated to locating and extricating any victims. This could include victims trapped in elevated positions, confined spaces ie inside vessels, victims trapped by heavy machinery or containers or by the fire itself. Be prepared for prolonged rescue operations that might be exasperated by the proximity of the entrapped victim to the fire. Additional hose teams might be needed to protect the rescue crews.

  Persons in the immediate proximity to the incident might suffer burn injuries and inhalation difficulties. The establishment of a medical sector as well as a coordinated patient transport system must form part of the initial incident command structure.

  Structures and processes that are exposed to the heat of the fire or are in direct flame contact, will react according to their specific properties and could have a catastrophic effect on the incident if not protected.

  Tank overfill fires or fires resulting from pipe failure can be managed in the same way as spill fires. It is, however, difficult to calculate the foam requirements for an oddly shaped spill. The previous point regarding adequate resources being available before commencing the attack, is also important here. The need for protection of surrounding exposures could be especially important here. It goes without saying that entry into any bund or spill area that has been involved in the fire should be strictly forbidden.

  Rim-seal fires can be largely extinguished with mobile or permanent water/foam systems. The fire department's role in such an incident will largely be a support operation. Tanks without fixed fire protection can be extinguished by deploying hose lines and monitors to fill the exposed rim-seal area. The 'over-the-top' application method will require the consideration of minimum application rates, application densities, minimum foam solution application durations as well as additional foam requirements for possible bund fires. These considerations will be dictated by the fuel involved, its flashpoint, the type of foam used and the application device. The calculation should also allow for the amount thereof that will be lost due to the thermal currents or foam that fails to reach the tank interior.

  It is generally accepted that application rates will be determined by the surface area of the tank ie its diameter. Space precludes us from discussing application calculations in too much detail here; suffice to say that in the pre-planning phase the particular on-site fire service should ensure that they have provided for sufficient foam supplies to address their largest risk. Most municipal fire departments only carry enough foam to deal with relatively small incidents such as road or rail tank emergencies and will rely on the supplies of the industry to which they provide a back-up service. A regional agreement for assistance in providing more foam supplies in the event of a major incident becomes more important where multiple risks exist.

  Large volume flammable liquid fires can also be extinguished by displacing the fuel source or removing the oxygen required for combustion by introducing an inert gas such as nitrogen into a closed vessel or by transferring the product out of the vessel at a point below the surface.

After the incident

Operational discipline must continue throughout the overhaul phase of the incident. Hazardous materials could still be present presenting an unreasonable health risk to personnel who are not adequately protected. Undetected fuel spills might ignite if exothermic processes are restarted without a thorough inspection of the affected area, which could have identified the spill pools. Incident command should not be in too much of a hurry to send units back to their bases unless they are certain that all risks have been neutralised and that plant overhaul and rehabilitation work can begin. Even at this stage it will be necessary to have some resources on standby.

In conclusion

The importance of pre-planning for large scale flammable liquid fires is key. Although, as mentioned earlier, municipal fire services will normally act in support of on-site fire services, it is vital that all responding agencies have a clear picture of the layout of the facility and the types of product kept there and their hazards.

Having adequate foam supplies, application devices and effective water supplies will determine your ultimate success. Petro-chemical fire fighting is more about logistics than heroics.

29 Oct - 3 Nov 2017

Expo Centre NASREC, Johannesburg

CONFERENCE

EXHIBITION

TRAINING

CHALLENGES

CLIMATE CHANGE AND THE EMERGENCY SERVICES

The 31st SAESI Conference, Exhibition, Training Events and Challenges

THE LARGEST EMERGENCY SERVICES CONFERENCE AND EXHIBITION IN AFRICA

For more information contact
Lee Raath-Brownie at **Fire and Rescue International**
Tel: 011 452 3135 **Cell:** 082 371 0190 **Email:** lee@fireandrescue.co

Organiser
FIRE AND RESCUE INTERNATIONAL

CLIMATE CHANGE AND THE EMERGENCY SERVICES

Conference

The effect of climate change has impacted on the emergency services in southern Africa, not only by means of their response to increased climate-related incidents caused by extreme weather such as heat waves, storm surges, floods, drought etc but also on their resources such as water supply. Apart from the impact of climate change on the emergency services, attention will be given to the challenges surrounding the rural-urban interface.

The 2017 SAESI Conference will provide a relevant line-up of international and local presentations with an emphasis on practical discussions around the impact of climate change on the emergency services.

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Who should attend?

Provincial fire, emergency and disaster management
Metro fire departments
Municipal and district fire departments
Industrial fire departments
Petrochemical fire departments
ARFF services
Heads of disaster management centres
Wildfire suppression and prevention organisations
National and private game parks' fire managers
Forestry companies
Fire protection associations
Emergency medicine and medical response organisations
Rescue organisations ie USAR, wilderness, mountain, maritime/water, search dogs etc
South African Police Service (SAPS)
South African National Defence Force (SANDF)
Mining fire and safety officers

SAESI 2017
CLIMATE CHANGE AND THE EMERGENCY SERVICES

Exhibition

The 31st SAESI Conference, Expo and Training Events 2017 provides an excellent opportunity exhibit new technology, products and services. The expo also affords exhibitors the ideal networking platform as it brings together the emergency services in Africa. Live demonstrations are welcome!

Who should exhibit?

Industry associations and institutes
Vehicle manufacturers (OEMs)
Vehicle and trailer builders ie fire engines and rescue trucks, ambulances, aerial platforms, ladder trucks etc
Protective equipment suppliers ie bunker gear, SCBAs, gloves, helmets, boots etc
Equipment suppliers ie nozzles, hose and reels, pumps, monitors, skid units, tanks etc
Communications and trunking
Software suppliers
Fire safety
Fire detection and suppression
Emergency medicine suppliers
Medical equipment
Rescue gear ie saws, IR cameras, rope, harness' etc
Water rescue equipment and craft
Training providers
Insurance companies

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SAESI 2017
CLIMATE CHANGE AND THE EMERGENCY SERVICES

Training events and challenges

A number of training events and challenges will be taking place. These include:
Fire fighter's challenge
Vehicle extrication challenge
Emergency medical challenge
High angle rescue challenge
Incident command system development programme
Public Information and Education Relations (PIER)

Teams

Teams are welcome to contact me for the application forms.

Sponsors

Sponsorship requests and packages will be emailed shortly. A tender process will be implemented for some of the sponsorships in order to impose impartiality and equality.

Event programme

Day	Date	Time	Event
Sunday	29 October 2017	09h00 onwards	Team registrations
	29 October 2017	TBA	World record attempt
	29 October 2017	TBA	Meet and greet, badge swopping
Monday	30 October 2017	08h00 to 16h00	SAESI EXCO meeting
	30 October 2017	TBA	Training sessions
Tuesday	31 October 2017	08h00 to 16h00	SAESI EXCO meeting
	31 October 2017	TBA	Training sessions
Wednesday	01 November 2017	07h00 to 08h30	Conference registration
	01 November 2017	08h30 to 09h00	Official opening
	01 November 2017	09h00 to 16h00	Conference, service awards, exhibition and challenges commence
	01 November 2017	17h00 to 22h00	SAESI Presidential cocktail
Thursday	02 November 2017	08h30 to 16h00	Conference, exhibition and challenges continues
	02 November 2017	18h30 to 23h00	Gala dinner, best stand awards (delegates and exhibitors)
Friday	03 November 2017	08h30 to 14h00	Conference, exhibition and challenges continues
	03 November 2017	08h30 to 16h00	Closing ceremony, competition results
	03 November 2017	16h00	Teams depart, stand breakup

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City of Rijeka Fire Brigade, Croatia

Ladder training exercise conducted as part of Croatian Fire Association 140 anniversary celebration program

Rijeka is the principal sea port and the third largest city in Croatia. It is located on Kvarner Bay, an inlet of the Adriatic Sea and has a population of 128 624 inhabitants. The metropolitan area, which includes adjacent towns and municipalities, has a population of more than 240 000.

Historically, because of its strategic position and its excellent deep-water port, the city was fiercely contested, especially among Italy, Hungary (serving as the Kingdom of Hungary's largest and most important port) and Croatia, changing hands and demographics many times over centuries. According to the 2011 census data, the overwhelming majority of its citizens are presently Croats, along with small numbers of Bosniaks, Italians and Serbs.

Rijeka is the main city of Primorje-Gorski Kotar County. The city's economy largely depends on shipbuilding maritime transport. In 2016, Rijeka was selected as the European Capital of Culture for 2020, alongside Galway, Ireland.

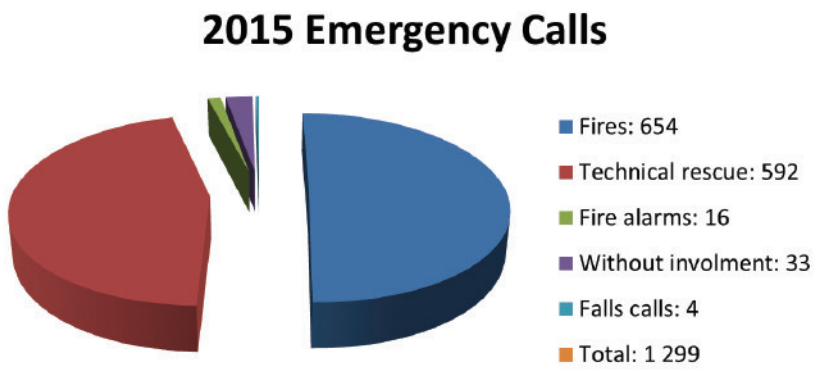
The City of Rijeka Fire Brigade has been proudly serving the citizens of the Rijeka since 1863.

During the very rich Croatian history, this part of country was under the occupation of several countries including the Austro-Hungarian monarchy and Italy. So was the fire service. This is the reason why Croatian Fire Service's roots are related mainly to Austria and Germany and a bit less so to Italy, which has had strong influence not only on the equipment used by the fire fighters but also on its development of strategical and tactical procedures. Basically, there are no differences between Austrian and German fire fighters compared with Croatian fire fighters in regard with the equipment they are using on daily basis. Some differences can, on the other hand, be seen in strategical and tactical procedures. Also, Croatian fire fighters are a bit more open to change and adoption of new procedures.

Rijeka Fire Brigade has 143 members of which 128 members are divided in to four shifts. Shifts are changed in 12/24, 12/48 hours periods. During a year, in average Rijeka Fire Brigade responds to around 1 300 emergency calls. The emergency calls are received in the County Fire Emergency Call Centre, which is situated in Rijeka Fire Brigade.

First attack vehicle made in 2002 by Ziegler, Germany for the City of Rijeka Fire Brigade

Memorial Fire Fighters Competition 'Fires of Rijeka' in the Rijeka City Centre



In-the-line-of-duty fatalities

Croatian professional fire brigades fall under the authority of the cities and municipalities. However, they are 60 percent funded by the national government with the balance of funding coming from cities and municipalities. Voluntary fire brigades also falls under the city and municipal authorities but they are funded from cities and municipalities.

Accordingly to the available data that reaches back to the beginning of 20th Century, during the past, six Rijeka Fire Brigade members have died in the line of duty.

Close to the end of World War II (WWII), allies were bombing Rijeka. A lot of civilians died and also four members of Rijeka Fire Brigade. They were battling a fire on a ship in Port of Rijeka, when the ship was bombed. Besides them, two more Rijeka Fire Brigade members died in the line of duty; one heart attack and the other in a gas explosion in 2005. In memory of all of their members, Rijeka Fire Brigade has established the Memorial Fire Fighters Competition 'Fires of Rijeka', which is held each year in September.

High-rise fires

During its history, the members of the City of Rijeka Fire Brigade gained a lot of experience on several fields. As Rijeka is situated on the coast of Adriatic Sea, however, the sea level is rising there wasn't much opportunity to expand the city, so a lot of high-rise buildings were built. Today, Rijeka has the largest number of high-rise buildings per square kilometre in Croatia.

This resulted in Rijeka's fire fighters special interest in high-rise fire fighting. During the brigade's past, a generation of fire fighters specialised in high-rise fire fighting and the current generation see's the need to improve and constantly improve their tactical procedures. One of their biggest problems is poor fire prevention principles in their high-rise buildings. The dry risers are often not working and the fire escape stairs are filled with a lot of stuff. This is the reason why special strategies and tactical approaches and procedures were adopted during the past and are still being developed today.

Marine fire fighting

Another important point of interest is marine fire fighting. Rijeka has the biggest port on the Adriatic Sea and in the city and surrounding area, there are three shipyards. One of them builds all types of new ships. Another one is dedicated to ship

rebuilding and renovation, while the third one is building smaller boats and yachts.

Industrial fires and hazmat

Also, the biggest Croatian oil refinery is situated nearby Rijeka resulting in the Rijeka Fire Brigade specialising in industrial fire fighting and hazardous materials (hazmat).

Road and rail accidents

As Rijeka is the largest port in Croatia and the third largest city, it provides for major traffic routes and junctions ensuing in a large number of motor vehicle accidents (MVAs) as well as rail accidents. Furthermore, there are a large number of tunnels in the surrounding area.

Wildfires

During the year there are a lot of wildfires, especially next to the railway Rijeka-Zagreb corridor. This type of incident can escalate to a county incident or even a national emergency. In this case, several fire brigades, both voluntary and professional will work together with other services such as civil protection units, the Croatian Army and mountain rescuers. Aerial support is provided by the Ministry of Defence to the ground forces. Croatia uses Canadairs CL-415 also known as Bombardier 415, which is an amphibious aircraft; Air Tractors and Mil Mi-8 MTV helicopters.

Rijeka Fire Brigade upholds very good relationships with industrial fire brigades. In case of a major incident, Rijeka Fire Brigade provides support for the industrial fire brigades. The Rijeka Fire Brigade, together with the industrial fire brigades, organise many training exercises to insure adequate preparedness in case of a real accident.

Diving unit

The Rijeka Fire Brigade's diving unit has been in operation since the late 70ies. Today, Rijeka Fire Brigade has diving unit that consist of 20 divers that are divided in to shifts so they can respond 24/7 in case of any incident.

Rope rescue

In 2004 rope rescue techniques were adopted into Rijeka Fire Brigade.

High rise fire fighting training

Compartment fire behaviour training

Today, the majority of Rijeka fire fighters are rope rescuers. It is has recently become mandatory for each recruit fire fighter to pass a rope rescue course and they are trained by Rijeka Fire Brigade's certified rope rescue instructors.

Training

The County Fire Training Centre is mutual project between the County Fire Department Rijeka Fire Brigade. Several fire instructors from Rijeka Fire Brigade are working together with the County Fire Department on developing the training centre. This is relatively new project in its beginning stages and the idea is to get funds from the European Structural Investment Fund to develop it. Up to now there is a CFire BrigadeT complex and USAR training.

In 2007, training in compartment fire behaviour training was initialised. All the brigade members have to pass the program on an annual basis at the County Fire Training Centre presented by Rijeka Fire Brigade instructors. The training centre also offers urban search and rescue (USAR) training. Members of Rijeka Fire Brigade were taught USAR techniques by French fire instructors and are now training other Rijeka Fire Brigade members.

Overstrand Fire, Rescue and Disaster Management adopts prescribed burning strategy

By Angelo Aplon, assistant chief fire officer, Overstrand Fire, Rescue and Disaster Management

Overstrand Fire, Rescue and Disaster Management have adopted a new strategy to manage the eminent threat of runaway wildfires in our municipal jurisdiction. We encourage land owners to manage their land by preparing, creating and maintaining firebreaks. Blocks are also prepared to burn, during ideal weather conditions.

This is the second year that we have applied this approach. The success of the strategy is based on partnerships between various role players and land owners. A number of partners contributed to a very successful year, which include Overstrand Municipal Environmental Management Section, Working on Fire, Greater Overberg Fire Protection Association, Overberg District Municipality, Enviro Wildfire Services and various land owners.

Various planning sessions and meetings were held with all the affected parties to ensure that everyone agrees with the plan. We have issued and renewed 203 fire permits from March 2016 until 11 November 2016. Most of the burns were done by the land owners without the assistance of the fire department.

Overstrand Fire and Rescue only assisted with very difficult and technical burns. Since February 2016 until November 2016 we have provide assistance with the following burns:

Date	Area
18 February 2016	Belladona street -Sandbaai area
12 April 2016	Fernkloof Nature Reserve – Mount Pleasant
23 May 2016	Coastal area – Sandbaai
03 August 2016	Corner of Hemel and Aarde and Camphill road
17 August 2016	White river farm – Stanford
23 August 2016	Weltevrede Farm – Stanford
31 October 2016	Newton Johnson Vineyard- Hemel and Aarde
09 November 2016	Grootbos Private Nature reserve - Gansbaai

We use the burns as a training exercise. It provides us with an ideal opportunity to practise our skills such as ICS position specific training, role and responsibilities, transfer of command, documentation of incidents, driver pump operator skills, fire behaviour, back burn techniques etc. The land owner remains responsible for the burn; we only augment their on-scene resources.

Out of the 203 new and renewed permits that were issued during our winter burn period, we had to assist seven farmers who had lost control over their fires.

The following are some of the contributing factors why land owners lost control over their fires:

- Not adhering to burn permit conditions
- Rapid change in the weather conditions
- Burning in strong winds
- Flair ups, after burn areas have not been extinguished properly
- Improper firebreaks
- Spot fires
- Subsurface fuels burning undetected for days

These strategies remain a very controversial where a certain section of the society feel that we need to consider the natural habitat and must take in consideration the animals that can be killed during the burn and whether there is an actual ecological benefit to the veld. We do try our best to sweep the areas before we start to burn but wild animals tend to hide away from humans, hopefully their survival instinct will kick in and they will move to safety. Neville Green, manager: biodiversity management of Overstrand Municipality works closely with the fire service to plan some of the burns and he is the expert in terms of burning for ecological purposes.

Some of the challenges we had to consider before we started with the strategy included:

- Large areas with the same veld age
- Absent land owners or weekend farmers
- Extensive wildland fire urban interface
- Land owners afraid of legal liabilities
- Financial circumstance of land owners
- Bad habits
- Diversity of the area - commercial vs tourism and natural beauty
- Lack of access to overgrown and undeveloped areas

Most of the above-mentioned challenges remain the same. It will take time to change things around but we have to start somewhere.

The advantages of the strategy include:

- Integration between land owners
- Collectively managing the fire risks
- Construction of strategic fire breaks
- Burning of fuel to reduce the fire load
- Strategically creating a mosaic of different veld ages
- Taking responsibility of the eminent wildfire threat in our area

Only time will tell whether we have adopted the correct strategy but one thing is certain, we could no

longer sit and wait for the wildfires during the fire season without putting preventative measures in place. To remain reactive is no longer financially viable and cost effective. We need to be more proactive.

We would like to thank the land owners, various agencies, Greater Overberg Fire Protection Association, Overberg District Fire Services and our own municipal staff who worked long hours to plan, conduct and record the burning.


Start of a block burn


Incident support by Enviro Wildlife Services


Ops section chief briefing


Newly constructed firebreaks

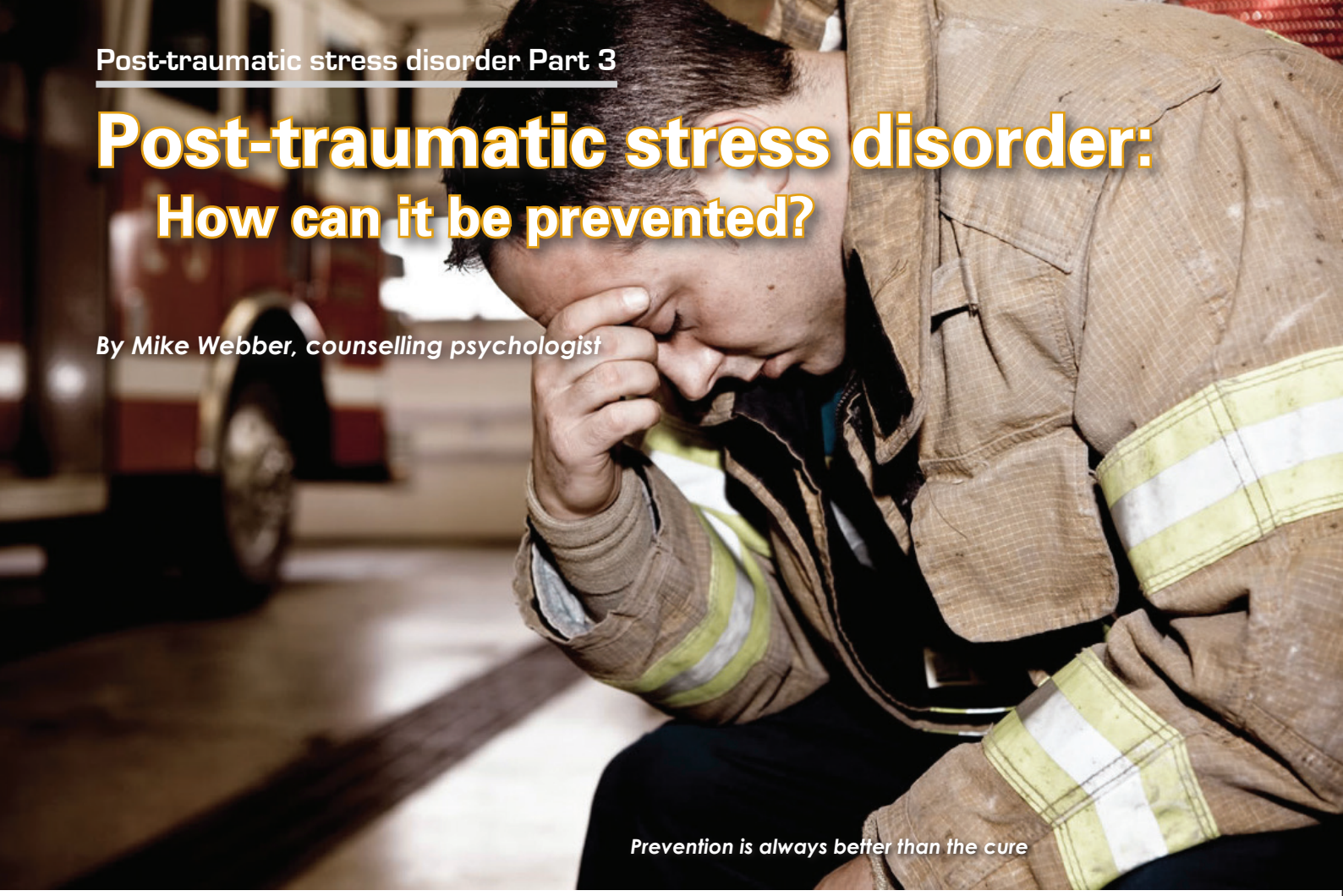

24 hours after burning, veld still smouldering


Local farmer assistance


Old veld burn against young veld

Post-traumatic stress disorder: How can it be prevented?

By Mike Webber, counselling psychologist



Prevention is always better than the cure

In this third part of a series on post-traumatic stress disorder (PTSD) we examine the 'good news' of PTSD and acute stress disorder (ASD): it can, to a considerable extent, be prevented or reduced in intensity. It requires the development of resiliency in emergency services workers. Resilience is the ability to bounce back or adapt well in the face of adversity, trauma, threats or stressors. It's not some sort of superpower or extraordinary skill; it's an ordinary ability that can be developed. The development of resiliency requires a multi-dimensional approach involving both organisational and individual levels. There needs to be 'buy-in' from the fire and emergency services senior management, middle management and individual fire fighters, emergency care practitioners, police, law enforcement and traffic officers.

But the most optimistic part of this proactive, preventative approach is that we do not need to wait until staff break. When they're already angry, abusing alcohol (or worse), suffering from depression, PTSD or are dysfunctional, it represents a psychopathology that needs to be treated and healed. This is where most employee assistance programmes (EAP) fail; they only intervene when it's too late and the person has broken and needs to be put back together but never the same as before. That's just simply too little, too late and unethical. The approach advocated in this part of the series represents a 'positive psychology', or psychofortology, literally meaning strength psychology, approach that builds on individuals' strengths and skills to move their breaking point further out. In this way risk and vulnerability are reduced.

The organisational level

There are several steps that can be taken at an organisational level, where the primary responsibility for policy implementation lies with senior management. Such measures may at some point in the future become mandatory. Section 7.9 of the draft White Paper on Fire Services circulated by the Department of Cooperative Governance for comment in March 2014 obliges fire services to take steps to implement programmes that will support and maintain the mental health of their staff. But there's no need to wait for this draft to progress through the statutory processes; there's already an ethical and legal requirement to protect staff from injury (and PTSD is a brain injury), so fire and emergency services could just as well begin developing such programmes right away. The European Guidelines: Psychosocial Support for Uniformed Workers maintain that emergency services have a moral duty to provide some form of psychosocial care for their staff.

Steps that can be taken include:

Personnel selection

It would be nice if applicants for the emergency services could be tested and individuals at higher risk of developing PTSD could be identified but there are no psychometric instruments that can reliably do so. However, screening applicants for emergency services posts for a history of predisposing factors, such as previous trauma, history of mental illness or abuse may prove useful.

Monitoring during training

In spite of the lack of instruments to evaluate pre-trauma risk factors, there are certain personal

characteristics that may render certain individuals more prone to developing PTSD. These include attributional style, resilience, anxiety sensitivity, coping style and social support. A study carried out on newly recruited paramedics in training in the London Ambulance Service was able to identify trainees at higher risk of developing PTSD within one week of commencing their training. Whilst this may sound like a complex process, the science seems to suggest that this approach works. There's still work to be done in this regard but it's a concept that emergency services could start looking at.

Research the problem

The extent of the mental disorder problem in most South African emergency services is unknown. The prevalence and incidence of PTSD, depression and alcohol abuse is unknown because it's so well hidden, both by the individual and the organisational culture. We need data. Emergency services need to start developing research initiatives at departmental, provincial and national level to quantify the problem. However, whilst emergency services management need to be the catalysts for this investigation, it cannot be carried out by the services. It can't be an in-house 'DIY' project. The emergency services do not have the skills to do so and may not have the trust of participants to be honest and open about their mental health challenges. External mental health researchers need to carry out the enquiry to ensure confidentiality, anonymity for participants and carry out a scientifically reliable and valid analysis of both quantitative and qualitative data that emerges from the study. In this way the challenges can be quantified, made explicit and put to use in developing programmes to support staff.

Psychoeducation to develop resiliency

Education about stress, stress management, PTSD, resiliency and mental health care need to be developed and integrated into fire service training right from Fire Fighter I level with ongoing update training on a regular basis as part of any service's daily routine. Whilst there are South African Qualifications Authority (SAQA) unit standards on stress management that are a part of over 50 NQF Level 4 and 5 qualifications, it is not registered as part of any fire service qualification. The unit standard as it currently stands is also lacking in many respects regarding specific challenges that face emergency services personnel and needs substantial revision to be of more value to emergency services. However, the point is that there is a unit standard available and could form the backbone of emergency services training on stress management.

Meditating fire fighter
Artwork by Alexi Torres

Offer mindfulness and meditation training

Yes, meditation. It's not some form of heathen or unGodly practice. Meditation and mindfulness practice is no longer seen as much as a Buddhist practice but is practiced in a more secular context. It's an integral part of mindful-based cognitive therapy (MBCT) and formal stress reduction programmes like the eight-week stress reduction programme developed by Prof John Kabat-Zinn at the University of Michigan Medical School. It's mainstream psychology. It's also being adopted by emergency services around the world. Police officers in Peel, Ontario, Canada, have been undergoing meditation training to develop their resilience. The Hillsboro Police Department in Oregon, USA and the Royal Canadian Mounted Police have initiated mindfulness training as a preventative intervention to assist their officers to develop their resilience. Readers that may have an interest in this approach can read more at the Royal Canadian Mounted Police Gazette at the web site listed in the references. These interventions could be developed and implemented by departments with little effort of expenditure

Peer support programmes

Peer support programmes need to be developed and implemented as described in part 2 of this series of articles on PTSD. Psychological first aid presented by colleagues, pastoral counsellors (chaplains of various faiths) and volunteers. However, the peer counsellors need to be rigorously screened and evaluated to ensure that they possess the necessary resiliency, empathy and skills to do this type of work. A psychologist would be most useful in this screening process. They then need to be trained in an evidence-based programme, such as the Trauma Risk Debriefing Programme (TRiM) referred to in part 2 of this series on PTSD. A model to establish a peer support system is already used in Europe and is described more fully in the European Guidelines: Psychosocial Support for Uniformed Workers. Copies of this document are available free of charge or can be requested from the author.

Destigmatising PTSD and 'help-seeking behaviour'

Policies and directives should be adopted by the services to break down the stigma of needing help and seeking help. Emergency services personnel need to understand, through departmental policies, that it's safe to seek out help when one is not coping. This holds true not only for PTSD but other challenges such as depression, alcohol abuse and feeling that one is at the end of one's tether. Encourage staff in distress to seek out professional help if peer counselling isn't going to be enough.

The individual level

Every individual in all the emergency services have a duty of care towards themselves. It's not only the departments' duty. Each emergency services worker has a responsibility to take steps to develop their own resiliency. It just seems that many don't know how to. Here are some steps to improving resiliency.

Psychosocial support

Having friends and family are vital to mental health. They're a critical ▶

part of developing resiliency as well as overcoming PTSD should one be unfortunate enough to develop it. Engaging with family and friends produces oxytocin (the 'cuddle hormone') in the right fronto-orbital part of the brain and engenders a sense of well-being. Accept the care and support that good friends and family that care about you.

Make friends outside the emergency services. I know and understand that historically emergency services workers have socialised within their services due to the constraints of shift work and the sense of family and community that exists within these services but it's not altogether healthy. Continual contact with colleagues at work, living together and then socialising together restricts opportunities for new friends and can lead to tensions, mistrust and even conflict. It also reinforces the identity or persona of being an emergency services worker. It defines one's personality but it's an impoverished personality. Make some friends outside the emergency services. Who are you when you take the uniform, protective gear or rank markings off? Realise that you're much more than a fire fighter, paramedic or police officer. Find out who you are apart from this fire fighter/paramedic/police officer person and you can do this with friends from outside the emergency services. Learn about yourself, discover who you are and celebrate who you are;

Develop your sense of identity

Develop a positive view and sense of yourself. Go back and re-read the above section.

Remind yourself why you're in the emergency services

Remind yourself of what value you bring to your town or city. Remind yourself that being an emergency services member isn't just about the job or getting paid at month end; it's a calling and it takes a special type of person to do it. It's a dirty job but communities absolutely have to have people like you. Take pride in what you do and remind yourself of that through a sense of pride and positive self-talk or self-affirmation.

Defuse stress

Stress is part of everyday life. Life will always hold challenges. But take time to defuse stress. Take up a hobby such as model-building, craftwork, woodwork, drawing, music, tai chi, build a remote control aircraft, gardening, glass art, learn to fly a kite, photography, astronomy, stargazing, etc; start a sport even if its walking, cycling or running around the block, bowls, archery, fishing, swimming, golf, hiking, surfing, yoga, Pilates or whatever suits your interests or engage in recreational activities like walks in the veld or on a beach, take a drive, go out and have a cup of coffee or anything that will get you out. Within your means. Be wary of expensive toys like 4x4s that can be fun but burn a hole in your pocket and add to your stress levels. Living within your means reduces stress.

But be wary of addictive behaviours. Whilst gambling, on-line gaming, computer games or even shopping may seem like healthy distractions, they tend to become addictive and an escape from reality. When they start to impact negatively on your social functioning, family life and suck up too much time, they're a problem behaviour.

And meditate (again)

The district police chief in Surat, Gujarat and who is responsible for over 3 500 police officers, strongly encourages his officers to meditate to both defuse stress and improve their performance at work]. There's no reason to wait on your department to implement a mindfulness and meditation programme. Find a meditation class or group in your town or neighbourhood. There are a lot of them out there. Practice mindfulness and meditation to reduce stress, develop patience, reduce anger and develop better emotional self-regulation.

Find a stress management course in your area. There are many stress management courses in most major centres. Some might even be covered by medical aid if you're diagnosed with anxiety.

Participate in religious or cultural practices

Whilst running a stress reduction seminar for recruit fire fighters at the East London Fire Station during 2004, one of the trainees was kind enough to share with me how he, within his culture, defused stress. When a member of his extended family was experiencing some form of significant distress, which in his case could be work-related stress or a traumatic incident, the extended family would draw together and participate in an indigenous religious ceremony that held a deep meaning for them. In this way he felt part of a close-knit community and experienced spiritual healing.

This doesn't only hold true for indigenous religious and cultural practice. It doesn't matter if one is Christian, Muslim, Hindu or Buddhist. There's a large body of research evidence that indicates that there is a strong positive association between faith and spirituality and improved resiliency and physical health. People with some sort of faith also tend to fare better than those without a faith-based belief in the treatment of many illnesses, including cancer, gastro-intestinal disorders and PTSD.

Avoid information overload

Television, tablets, smart phones, internet and social media are addictive. They also bombard one with huge amounts of useless information, information overload, most of which is negative, catastrophic and depressing. They'll seduce one into following themes, stories and trends that have no personal relevance. They then take you away from being present in the moment, take you away from healthy relationships and interfere with healthy activities.

Take a tech break. Turn all digital devices off for part of the day. Don't watch too much news. Limit social media to an

allowance of less than one hour per day. Reduce the info overload.

Avoid self-medicating

Do not attempt to use alcohol or any substance, whether over-the-counter or prescription, legal or illegal, to attempt to cope with stress and emotions. It never turns out well and then you may well end up as a candidate for substance abuse treatment somewhere down the line that only complicates the whole picture and your life, not to mention your health. It could even increase your chances of developing PTSD. This is not to suggest that this author is anti-alcohol. It needs to be consumed, if one must in moderation. The World Health Organisation guidelines stipulate two units per day for males and one unit per day for females. They're not cumulative, so one cannot 'bank' what one hasn't consumed through the week and hang one on over the weekend. Drink socially, drink responsibly and do not drink to cope with stress.

Change what you can, accept what you can't

Many people worry and stress about things that could be changed that adds to their 'stress-load'. Change them. Act decisively to change these stressors and resolve them rather than worrying about them, trying to ignore them and hope that they'll go away. Most often they won't. If your relationship is a stressor, go for marriage counselling. If your finances are a stressor, see a financial advisor or figure out a way to make a part time income. Learn to live within your means and halve your stress-load. If your weight, lifestyle, health or alcohol consumption is a worry, join a gym, see a medical practitioner, dietician or psychologist for coaching. If you're burning out, go back and re-read section about defusing stress above and do something about it.

Dear Lord, please give me the strength to change the things that I can, the Grace to accept the things that I can't and the wisdom to figure the difference between the two.

Nurture a positive self-image

Build a positive self-image, be proud of oneself and the work that you do and develop confidence in your ability to solve problems. Trust your instincts.

Do not 'catastrophise'

Do not blow things out of proportion and make a catastrophe out of a moderate event. Don't always look for drama, crises or catastrophes. Don't make mountains out of molehills. Take a step back and see things in perspective; look at the bigger picture.

Be an optimist

Even when things look bleak, try to take a broader perspective. Don't ruminate and catastrophise about a challenge or difficulty. Try to take the broader perspective and see that there are a lot of positives in your life, even in the midst of difficulties. Count your blessings. It's the power of positive thinking at work.

Learn from your past

Look back at your past and see how you dealt with previous crises, challenges and difficulties. What did you think? What did you do? Who did you reach out to for help? Who reached out to you? How did you overcome the challenge? Learn from those previous experiences.

By following the above guidance, one develops resilience and makes one more resistant to suffering from PTSD. However, in spite of the above preventative measures some workers will unfortunately go on to develop PTSD after an extremely traumatic exposure; seek professional help.

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Toughest Fire Fighter Alive 2016

Mark Smith, founder of TFA South Africa and Mayor Memory Booysen

30 September and 1 October 2016 saw fire fighters from all over South Africa compete for the illustrious Toughest Fire Fighter Alive South Africa title. The challenge, which took place at the Rosemoor Stadium in George, was hosted by the Eden District Municipality. Eden District Municipality's mayor, Memory Booysen, visited the two day event in support of his team while chief fire officer Freddie Thyver actively participated.

The course

The first stage was the traditional hose drag with two hoses comprising three 64mm hose lengths each over 90 metres, then roll two 30-metre lengths of 64mm hose on the male coupling, carry it and place in the designated box.

The second stage was an obstacle course that included hitting the weight across the Keiser Force machine with a sledgehammer; carrying a foam drum for 60 metres that included two passes through a 10-metre tunnel; dragging a 80kg dummy over 80 metres and finishing off with a three-metre high wall climb.

The tower challenge followed third and involved carrying a foam container to the top of the 8,5-metre tower; hoisting up two rolled 65mm hose lengths to the top of the tower and carry the foam drum back down to ground level.

A run in bunker gear carrying rolled hose was in place of the traditional stair climb with SCBA as the last stage.

An intense competition it was but the results speak for themselves. Fire and Rescue International congratulates the winners on their incredible achievements. Furthermore, we compliment all the contestants on their competition ethics, perseverance and mostly their camaraderie. It was an honour to see the 'Brotherhood' in action!

See you next year!

Overall male and female winners Emile Conrad, Eden DM and Precious Mpungose, eThekwini Metro

Overall male winner was Emile Conrad

Overall female winner was Precious Mpungose

Results

Overall winners: Male

1st	E Conrad	Eden	09:42:09
2nd	S Cyprian Gumede	eThekwini	10:40:19
3rd	C Hendricks	Cape Town	11:06:21

Overall winners: Female

1st	P Mpungose	eThekwini	24:26:68
2nd	S Faith Mbanjwal	eThekwini	27:51:22
3rd	L Deysel	Stellenbosch	34:53:91

Male 18 to 29 years

1st	S Cyprian Gumede	eThekwini	10:40:19
2nd	C Hendricks	Cape Town	11:06:21
3rd	S Adgar Cele	eThekwini	11:10:13

Male 30 to 34 years

1st	E Conrad	Eden	09:42:09
2nd	R Abrahams	Cape Town	11:23:75
3rd	H Swart	Rosenbauer	12:43:53

Male 35 to 39 years

1st	R van der Bergh	Cape Town	12:31:54
2nd	T Elvis Mgumbeza	eThekwini	13:32:11
3rd	J Williams	Stellenbosch	17:55:11

Male 40 to 44 years

1st	C Bishop	eThekwini	11:56:16
2nd	M Masukela	Mangaung	17:38:12
3rd			-

Male 45 to 49 years

1st	S Woostencroft	Cape Town	15:02:18
2nd	G Steynsburg	Rosenbauer	31:13:84
3rd			-

Male 50 to 54 years

1st	R van Deventer	Mangaung	14:41:87
2nd	S Julius	Mandela Bay	31:27:00
3rd			-

Female 18 to 29 years (individual open)

1st	P Mpungose	eThekwini	24:26:68
2nd	S Faith Mbanjwal	eThekwini	27:51:22
3rd	L Deysel	Stellenbosch	34:53:91

Female 30 to 34 years (individual senior (A))

1st	B Conrad	Eden	35:00:84
2nd			-
3rd			-

Female 35 to 49 years (individual senior (C))

1st	T Octavia Jali	eThekwini	36:24:31
2nd			-
3rd			-

Relay teams

Top three relay teams

1st	**Eden District Municipality Team 1**	11:42:15
	Luciano James	
	Emile Conrad	
	Branwil Abrahams	
	Hein Wesley	
2nd	**City of Cape Town Team 1**	11:46:75
	Ryan Abrahams	
	Alno Kroon	
	Patric Mngqibisa	
	Rudi van der Bergh	
3rd	**City of eThekwini Municipality Team 2**	12:13:10
	Samkelo Gcwensa	
	Grant Vukile Ndlovu	
	Aghmat Steele	
	Vilakazi	

Over 40's relay team

1st	**Over 40's**	14:37:66
	Russel van Deventer	
	Charles Bishop	
	Molifi Masukela	
	Mark Smith	

Female relay team

1st	**eThekwini Municipality Female Team**	23:12:50
	Simangele Faith Mbanjwa	
	Precious Mpungose	
	Thembisile Octavia Jali	
	Phakama Sigwela	

TOUGHEST
FIREFIGHTER ALIVE
SOUTH AFRICA






POWERADE











14





















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NMMU-SAIF holds fire management symposium in Kruger National Park

The 2016 NMMU-SAIF Fire Management Symposium was held in Kruger National Park

The Nelson Mandela Metropolitan University, in conjunction with the Southern African Institute of Forestry (SAIF), held the Fire Management Symposium in the Kruger National Park on 24 October 2016. Tiaan Pool of NMMU was the main organiser assisted by Jackey Deacon.

The presentation line-up included international speakers such as Prof Domingo Viegas of the University of Coimbra in Portugal, who provided the key note address, 'Safety for fire fighters combating wildfires'. "A sound knowledge on fundamental and practical aspects of fire behaviour is required to make the correct and safe decisions in the field," said Prof Viegas. He added, "To improve fire safety you need:

- Good equipment
- Good leadership
- Good tactics
- Good safety rules.
- Good training, experience and knowledge."

Dr Paolo Fiorucci of the CIMA Foundation in Italy discussed 'Wildfire risk management – science in action', saying that it is possible to predict fire danger through measuring the meteorological effect on fuel moisture and fire behaviour but it is impossible to predict human behaviour.

Dr Jonas Franke of Remote Sensing Solutions in Germany spoke about 'Fuel load mapping in savannah eco systems in support of integrated fire management within protected areas'. "A paradigm change from suppression to preventative prescribed burns in order to reduce fuel load is imperative," said Dr Franke. He explained how remote sensing can support integrated fire management through the estimation of dry biomass and fuel load mapping.

Prof Winston Trollip, research associate at NMMU, discussed 'Fire, a bad master but a good servant - what are the risks?' "Fire, both too little or too much, results in risks. The challenge is to enhance its capability to be a good servant and minimise the risk of it becoming a bad master. Consideration of the ecological status of the rangeland and using a decision support system based on rainfall, grass biomass, species composition of the rangeland, past burning history and reasons for burning will minimise risks and ensure that fire is indeed a good servant and not a bad master," said Dr Trollip.

'Fire risk equals Food Security' was Malcolm Procter of the Department of Forestry and Fisheries' (DAFF), topic of discussion. Natural disasters can have significant economic and food security impacts, especially on the poorest households. Procter said that the shift from an 'emergency response' to a 'prevention' and 'risk mitigation' mind set is critical. It requires integrated multi-sectoral policies, plans and strategies, strong cooperation and joint planning and implementation by multiple stakeholders and partners.

Dr Philip Frost of the Advance Fire Information System (AFIS), provided insight into the AFIS programme, its history and components such as the AFIS dashboard and lightning detection network. The new AFIS Pro app will be launched in 2017, which will include crowd-sourced fire detection and reporting. "The AFIS Watchtower app allows users to report the location of fires by pointing the Watchtower app in the direction of the fire through the phone camera," said Frost.

'Fire and fibre sustainability in South Africa' was presented by Duane Roothman of Sappi. Roothman said that the factors affecting fire sustainability are all inter connected and that landowner participation is critical to fire management and food security.

SANPark' Navashni Govender provided insight to fire research and fire management policies in the Kruger National Park saying that fire management approaches have changed fundamentally several times over the past century. Long term fire experiments (EBP) in the Kruger National Park was initiated in 1954 with the intention to gather information periodically, analyse, synthesise in order to improve fire management. The current programme is a comprehensive scientific trial for promoting the understanding of fire-herbivory interactions. ▸

DMISA holds annual conference in Rawsonville

Pat Adams, Mduduzi (Mdu) Nxumalo, Bafana Mazibuko and Dr Johan Minnie

The Disaster Management Institute of Southern Africa (DMISA) held its annual conference and annual general meeting (AGM) in Rawsonville, Western Cape Province, on 21 and 22 September 2016. This year's conference was aptly themed, "Climate, disaster risk, early warning and response: re-evaluating resilience" and was evident in the numerous informative presentations and discussions.

During the AGM, DMISA inaugurated its new president, Bafana Alfred Mazibuko and the new deputy president, Mduduzi Lancelot (Mdu) Nxumalo.

Preceding the conference was a consultation session on the Guideline for

▶ Dr Izak Smit of SANParks looked at 'High intensity fires, does it slow down bush encroachment or speed up loss of tall trees'. "Fire intensity can be used to manipulate highly divergent woody vegetation structure outcomes within a short period of time. High intensity fires were effective, at least in short term, in reducing woody cover, which was the intended outcome yet at considerable 'cost' to tall trees, an unintended outcome," said Smit.

'Can pyric-herbivory drive a switch in savanna state from a tall to short grass system?' was the presentation by Jason Donaldson, also of SANParks. Donaldson detailed the current fire management strategies in Kruger National Park, adding the concerns on large, intense and hard to control fires on basalt soils. "Our research has shown that small repeated fires increase short-grass grazer densities and that increased grazing can maintain grass height in a short state without the use of fire.

Tercia Strydom discussed the effect of long-term fire treatments on soil hydraulic properties and water balances in semi-arid savannas. "Not fire frequency but time following a fire plays a major role on changes to soil hydraulic properties.

Speakers and session chairs

Herbivore trampling exacerbates the effects of fire leading to more compacted soils. Frequent fires consume organic matter and result in lower soil water retention capacities. During extreme rainfall events, more runoff will occur on an annual burn plot," concluded Strydom.

SANParks' Chenay Simms discussed fire mapping, monitoring and TPCs in the Kruger National Park (KNP). "The KNP has long history of prescribed burning starting in 1937 and in 1946 its policy changed to fires no more frequent than once every five years. During the period 1957 to 1980, the fire management regime changed to regular prescribed burns every three years. In 2002, the current integrated fire management policy with threshold of potential concern (TPCs) was established, which combines wildfires and point ignitions based on ecological criteria. Fire scar maps are used as a TPC measure thus allowing interventions to take place in a timeous manner. Long term monitoring of fire is essential for successful implementation of fire policies," said Simms.

The symposium was followed by a field trip visiting the fire research plots in the park and a guided hike.

Disaster Management Plans presented by Jurgens Dyssel of the National Disaster Management Centre (NDMC). This was followed by a practical incident command system (ICS) exercise in which conference attendees actively participated with surprising results. The exercise was organised by the Western Cape Government and facilitated by Colin Deiner.

A short film festival that focused on safety at sports and recreational events was another first at this year's conference and attendees were able to earn continuing professional development (CPD) points by participating.

Conference

The conference attendees received a heart-warming welcome from Mayor Antoinette Steyn, executive mayor of Breede Valley Municipality while Dr Helena Von Schlicht, executive mayor of Cape Winelands District Municipality, provided an overview of disaster management in the district in her welcoming address. In his absence, Colin Deiner read Minister Anton Bredell's speech, providing insight into the provincial aspects of disaster management in the Western Cape.

Head of the National Disaster Management Centre (NDMC), Ken Terry, provided a national perspective on current disaster management issues in South Africa, presenting an overview of the implementation of Government's response and mitigation plan on drought and water supply shortages.

Conference topics included 'Weather, climate and related service in a changing world" by presented by Dr Deon Terblanche, director of research at the World Meteorological Organisation (WMO); the impact of the Disaster Management Amendment Act (DMAA), 2015 (Act no 16 of 2015) and the Sendai Framework for Disaster Risk Reduction (SFDRR) 2015-2030 presented by the NDMC's Ané Bruwer; Continuous Professional Development of Disaster Management Practitioners presented by DMISA's outgoing president, Dr Johan Minnie; 'What every disaster manager should know about climate change response: presenting actionable climate change information for disaster risk reduction' presented by Daniël Brink and Dave Ogier of Aurecon; 'Weather is what you want; climate is what you get' presented by Johan Stander of the South African Weather Service's (SAWS); 'Implementation of consequence management: An all hazard response' presented by Schalk Carstens and Dr Johan Minnie; a number of informative plenary sessions followed after which a panel discussion on 'Hazard classification and resilience, are we focusing on the right problems' concluded the conference.

ICS exercise

In cooperation with Western Cape Disaster Management, an incident command system (ICS) exercise preceded DMISA's conference in which conference attendees actively participated with surprising results. The purpose of the exercise was to expose disaster management role players and other conference attendees to the incident command system (ICS) and how it is implemented during a major incident.

The main objectives of the exercise were to:

- Identify types of agency policies and guidelines that influence management of incident or event activities
- Implement processes for developing incident objectives, strategies and tactics
- Introduce steps in transferring and assuming incident command
- Develop and implement incident objectives

Approximately 60 people attended the exercise, which was coordinated by the operations sub-directorate of the Western Cape Disaster Management Centre. There were four incident command stations, which were supervised by Etienne du Toit, Etienne van Bergen, Reinard Geldenhuys and Theo Botha.

- Multi-agency command
- USAR IC (Milnerton incident) administered by Breede Valley Fire Department's, Sewes Pretorius
- Chevron IC administered by Chevron's Michael Clark
- Koeberg station EMS IC

Scenario

The scenario simulated a major earthquake measuring 6.8 on the Richter Scale that occurred in the Milnerton area of Cape Town. The quake occurred at 08h30 on a Tuesday morning. The epicentre was in the vicinity of Woodbridge Island and most of the damage occurred to the north of the epicentre. Although buildings in the city centre suffered minimal damage with no loss of life, a multi-storey residential structure collapsed in Milnerton and other incidents occurred at the Koeberg Nuclear Plant and at the Chevron Refinery, respectively.

Although off to a slow start as the majority of participants had not been involved in the line functions, ICS or had work together as a team, the exercise prompted teamwork and role identification resulting in fairly smooth operations and a better understanding of the pressures during a major incident, especially on the incident commander.

Councillor Loekie Niehaus, Cape Winelands District Municipality; Mayor Dr Helena Von Schlicht, executive mayor of Cape Winelands; Mayor Antoinette Steyn, executive mayor of Breede Valley Municipality and Dr Johan Minnie

An ICS exercise preceded the conference

SAMRO members attend world's biggest rescue and salvation event in Brazil

By Neville van Rensburg and Julius Fleischman, World Rescue Organisation (WRO) assessors and members

Neville van Rensburg, Fabian Hoffman, Richard Botha and Julius Fleischman

The South Africa Medical Rescue Organisation (SAMRO) members attended the World Rescue Organisation's (WRO) Rescue Challenge (WRC) on 19 to 23 October 2016 in Brazil. Hosted in the City of Curitiba situated in the State of Paraná and promoted by the Brazilian Association of Rescue and Salvation (ABRES), the event gathered approximately a thousand professionals from international and national teams, as well as field experts, students and the general public. The WRC is considered the largest international rescue event performed in a simulated environment.

SAMRO members included Neville van Rensburg, Richard Botha and Fabian Hoffman of Western Cape Metro Rescue and Julius Fleischman of Free State Department of Health Rescue. Hoffman attended the event as a shadow assessor after which he qualified as a WRO assessor.

The purpose of the event was to highlight and promote actions that contribute to reduce the number of traffic accidents and their consequences, strengthen the topic's discussion within the community, improve professional's techniques and promote the exchange of knowledge.

SAMRO also attended the Annual World Rescue Organisation (WRO) meeting at the event, which contributed to Hoffman qualifying as a WRO assessor.

The attendance of SAMRO assessors at the WRO Assessor's Workshop that was held earlier this year in Ireland, contributed a great deal to the event held in Brazil.

Curitiba

Curitiba is the capital and largest city of the Brazilian State of Paraná. The city's population numbered approximately 1 879 355 people as of 2015, making it the eighth most populous city in the country and the largest in Brazil's South region. The Curitiba Metropolitan area comprises 26 municipalities with a total population of over 3,2 million (IBGE estimate in 2010), making it the seventh most populous in the country. Curitiba is best known now as a pioneer of sustainable mass transportation and waste recycling.

In Brazil, SAMRO member saw world class rescue and trauma teams compete in events, designed to challenge emergency service personnel by developing and enhancing their existing skills and to help raise awareness of the global problem of road deaths and injuries.

World Rescue Challenge 2016

SAMRO and the South Africa Extrication team, also members of the WRO and Assessors, have been competing at the World Rescue Challenge in Brazil, with emergency services from around the world against one another to find out who are the best. The South African team was very excited to take part in the 2016 World Rescue Challenge. They hoped to build on their experience as it was a great opportunity to test their skills and increase their knowledge on new technology and rescue techniques.

The scenarios were run by the WRO and set up by medical professionals. The World Rescue Challenge (WRC) happens annually and brings together professionals that work with rescue, salvation and pre-hospital care, who are interested in refining their techniques and participate in exchanging their experiences' with teams from several Brazilian states and International groups.

Within the extrication challenge discipline, teams were assessed against incident command, medical- and technical rescue by a team of dedicated international assessors. Each extrication team consisted of six members who include the team leader, two medics, two technical rescue personnel and one person responsible for operational support.

A series of realistic and complex rescue scenarios put competitors to the test. They had to impress the judges with their speed, effectiveness, decision-making and reasoning.

The teams also attended a series of seminars and workshops, designed to help spread best rescue practice around the world.

These events are a brilliant for honing the operational skills that our fire fighters might have to use at any given time and place in South Africa. Events like these are built upon the training that

all our crews received, boosting their confidence and helping them to develop as professionals. Ultimately, of course, it enables us to deliver the best possible service to people in South Africa.

WRC 2016 results

Top developmental teams

Best trauma team - Developmental first: Dudelange, Luxemburg
Best rapid team - Developmental first: Mato Grosso do Sul Rescue Team 2
Best standard team - Developmental first: SDIS17, France
Best complex team - Developmental first: SDIS17, France
Best RTC team overall - Developmental first: SDIS17, France

Trauma awards

Best overall trauma award first: London Fire Brigade, United Kingdom
Best overall trauma award second: Parade, Portugal
Best overall trauma award third: Hereford and Worcester, United Kingdom

Team awards

Rapid

Rapid team award first: South Wales Bridgend, United Kingdom
Rapid team award second: RSB Lisboa, Portugal
Rapid team award third: Wollongong, Australia

Standard

Standard team award first: South Wales Bridgend, United Kingdom
Standard team award second: Hereford and Worcester, United Kingdom
Standard team award third: Generalitat de Catalunya-Terrassa, Spain

Complex

Complex team award first: South Wales Bridgend, United Kingdom
Complex team award second: RSB Lisboa, Portugal
Complex team award third: Hampshire, United Kingdom

Individual/team awards

Best technical team first: South Wales Bridgend, United Kingdom
Best technical team second: RSB Lisboa, Portugal
Best technical team third: Generalitat de Catalunya-Terrassa, Spain

Best medic first: South Wales Bridgend, United Kingdom
Best medic second: RSB Lisboa, Portugal
Best medic third: Hampshire, United Kingdom

Best team leader first: Generalitat de Catalunya-Terrassa, Spain
Best team leader second: South Wales Bridgend, United Kingdom
Best team leader third: Hereford and Worcester, United Kingdom

Best overall team awards

Best overall extrication team first: South Wales Bridgend, United Kingdom
Best overall extrication team second: RSB Lisboa, Portugal
Best overall extrication team third: Generalitat de Catalunya-Terrassa, Spain

SAMRO would like to thank Brazil and their amazing staff for the excellent work they did for the event! Double congratulations to ABRES and the WRO members in Brazil, for a very successful World Rescue Challenge held and become a level 2 member of the WRO.

The next event will be held from 30 August to 3 September 2017 in Romania. The World Rescue Challenge 2018 will be held in South Africa hosted by the City of Cape Town.

Scenarios were planned to grow the skill and knowledge of participants

Marsh First Aid Competition
held at SA Emergency Care, Modderfontein


The winning team was Spar Western Cape

The Marsh First Aid Competition took place on 9 September 2016 at SA Emergency Care, Modderfontein, South Africa. The competition included one simulated trauma incident, one cardiopulmonary resuscitation (CPR) incident and one relay event. The aim of the exercise was for industrial first aiders to put their skills to the test whilst recognising possible areas for improvement.

Winners
The winning team, Spar Western Cape received a large trophy; each member received a small replica trophy and soft shell first aid carry bag. The winning company received a metal first aid box, all fully stocked.

Scenarios
Each team had to complete a series of three different scenarios, which included:

Simulated trauma incident
The simulated trauma incident staged a workplace accident, in which a worker had fallen from a ladder with an electric appliance. The patient was conscious and informed first aiders of neck and back pain. He also sustained a head injury and open wounds to his right leg and arm. Participants were expected to secure the scene and follow protocol in treating the


Simulated workplace trauma incident


The team relay event consisted of four injuries

First aiders dress open wounds to right leg and arm during simulated trauma incident

First aider dresses open fracture in relay event

Marsh Fire Fighting Competition
finals held at Koeberg, Cape Town

The Marsh Fire Fighting final competition was held at Koeberg, situated in Cape Town, South Africa, on 28 October 2016. The competition comprised of a number of set drills where the individual and the fire team were tested for capability and readiness.

Selected qualifying teams from the regions were invited to put their skills to the test against other regional finalists, to declare an overall winner of the competition. Twenty-two teams competed in the regional finals in the beginning of October and the first five teams qualified to take part in the nationals. Competing teams were judged in accordance with the rules outlined by the drill instruction.

RCL Foods Consumer Grocery, overall winner represented by Frans van Staden, the team captain, Neels Bouwer, Evans Lephale, Jackson Mulaudzi, Theuns Britz and Bertus Stols

Winners
RCL Foods Consumer Grocery fire fighting team were the overall winners of the Marsh Fire Fighting Competition 2016 and was represented by Frans van Staden, the team captain, Neels Bouwer, Evans Lephale, Jackson Mulaudzi, Theuns Britz and Bertus Stols, with a total of approximately 88 years' experience.

Other competitors were Divfood Vanderbijlpark, RCL Foods Consumer One, Culinary N'dabeni, Culinary Paarl Jam Unit, Omnia Red, Snacks and Treats KwaZulu-Natal, Mpact Versapak, Twinsaver Group, Omnia Yellow and CCS Logistics.

Regionals
The Marsh Fire Fighting competition kicked off its regionals at Koeberg, Cape Town on 23 September 2016. Mpact Versapak won the first regionals. Twinsaver, Verulam were the winners of the second regional held at eThekwini, KwaZulu-Natal on 30 September 2016. The third and final regional competition was held at SA Emergency Care on 7 October 2016, the winners were Omnia Red.

Teams were expected to complete the following exercises according to standard protocol and as timeously as possible.

Team event
All team members were blindfolded, except for the captain. Teams had to enter a dark room and move through, over and under obstacles, retrieve a dummy doll and bring it out.

Dry chemical powder (DCP) fire extinguisher drill
A pan fire had to be extinguished by ▸ patient. Each scenario was divided into the required steps and each step was scored accordingly.

Cardiopulmonary resuscitation (CPR) incident
During the guided CPR exercise, first aiders were graded on technique and protocol.

Relay event
The relay event saw teams of four members, each were expected to treat one injury of four. The four injuries sustained by the patient were an open fracture to the left arm, a sprained ankle, an open wound to the right leg and an abrasion to the right arm. These injuries were expected to be treated accurately and timeously.

The competition saw nine teams from various companies compete, which included Spar Western Cape Distribution Centre. Spar Dearest, KwaZulu-Natal, Albany Bakery, Randfontein, Sunbake, Nelspruit, Spar KwaZulu-Natal, Reid and Mitchell, CCS Logistics, Midrand, Tiger Milling, Hennenman and CCS Logistics, City Deep.

Marlene van der Merwe, practice leader, CRM Training said, "We would like to thank all participating bodies including SAEC, CRM Training, delegates and management. There will be Cape Town and Johannesburg-based competitions in 2017, however, no final dates have been set."

Hose drill challenge

- one nine kilogramme fire extinguisher. Teams had to select between a number of incorrect extinguishers. RCL Foods Consumer Grocery was the only team that succeeded in this.

Hose drill

Teams were required to extinguish a fire, in which two cars were alight next to each other. A judge gave command of a burst line and teams had to replace a length of hose. All teams received two 65-millimetre and five 38-millimetre hoses to complete drill.

A tie breaker followed between RCL Foods Consumer Grocery and Divfood Vanderbijlpark. The tie breaker challenge was a one man hose drill challenge, in which one team member per team competed. RCL Foods Consumer Grocery's Theuns Britz completed the exercise in the fastest time and won the competition.

For many years, CRM Training, a division of Marsh Risk Consulting, has organised and hosted numerous fire team competitions for a number of their clients. Through increased demand, it has become obvious that a non-client specific fire team competition would be of great value where company teams can, not only 'pit' themselves against their own organisations teams but also against that of the rest of the market, thus providing a good measure of their preparedness and benchmark themselves to the rest of the market's level of training and fire response capabilities.

Dry chemical powder (DCP) fire extinguisher drill

Hose drill challenge

Dark room team event

Dark room team event

Zero talent Part 3

By Wayne Bailey


Wayne Bailey

Passion. Nelson Mandela said, "There is no passion to be found playing small; in settling for a life that is less than the one you are capable of living." When you have passion as part of your DNA, it can be seen like a lighthouse on an ocean cliff. If you have passion for your children, there is nothing small in the way you show it and treat your loved ones. When you have passion for the fire service, you show up to work early, volunteer to do extra at work or at a place you may volunteer for after work or on weekends.

Anthony J D'Angelo said, "Develop a passion for learning. If you do, you will never cease to grow." In our line of business, we're always learning. If you're not, it's like treading water in a swift river. You're going to go backwards.

Being prepared. In our job, we have KSAs ie knowledge skills and attitude. Let's break it down.

Knowledge (Cognitive)

We need to have factual and verbal knowledge of what is expected of us. We begin to learn this when we go through rookie school and emergency medical technician (first responder) school. You may have learned something having to recite a medical procedure, know the different types of shock using rimes or the knowledge to figure how much water you need to flow to put out a fully involved two storey commercial building with 9 290 square metre (100 000 square feet).

Skills

Skills are also called psychomotor skills. They are routinely developed and automatically performed. In our job, it could be a knot tied in the dark or behind our back without looking. It just happens from tying the same knot a thousand times.

Attitudes

Attitudes can be good or bad. In this article, we will discuss positive attitudes. Maya Angelou said, "If you don't like something, change it. If you can't change it, change your attitude." This is difficult to accept, especially for me. Sometimes you have to have an attitude check from the neck up. Ask a close friend or confidant about your attitude.

John Maxwell said, "People may hear your words but they feel your attitude." It's true. Words are cheap when it comes to feelings. We will always remember how someone makes us feel. If I tell someone I hope they get feeling better verses giving them a hug and saying it, the message becomes more personal.

Doing extra

If you have passion, this becomes automatic. Ross Mathews said; "If you want to succeed at any job, make yourself invaluable. Go the extra mile; make them never be able to imagine what life without you there would be like." Going the extra mile could be putting down a plastic mat in a hallway of a house while doing overhaul, so not to soil the carpet. In a recent wildland fire, fire fighters took time to take down our country's flag from a pole that was hanging from the porch. They rolled it up and stored it, so it would not be burned or get dirty from the smoke. When the home owner came home after the evacuation was over, she wrote a Facebook post to a local new station. It got 259k likes, almost 100 000 shares and over 8 000 comments. That's a great example of 'Doing extra'.

Being coachable

I was playing golf with my boss one sunny day. I was having a hard time hitting the ball straight. He said move your body this way and keep your chin up. Afterwards, we were talking about the game and he said that I was coachable, meaning I would take his instruction and use it to better myself.

John Wooden, a famous basketball coach in the USA said, "A coach is someone who can give correction without causing resentment.

Who do you have in your life that is or can be your coach? I friend, mentor, officer on your engine or ladder? Whoever it is, if you ask for advice, be ready to implement the knowledge and make yourself a better parent, co-worker and friend.

‘Saved’, by Charles Vigour

‘Saved’ is the best known painting by the artist Charles Vigour. It is also the most famous work of fire art in the world. ‘Saved’ was painted in 1891/2 and was first exhibited at the Royal Academy, UK, in 1892. In 1894 it was put on display at the Atkinson Art Gallery in Southport.

There has been much speculation regarding the house painted in ‘Saved’. It is believed to be Winchester House, a large Victorian house south of the Thames in London, which currently houses the London Fire Brigade Museum. The house was originally built for Captain EM Shaw who was the chief fire officer of the Metropolitan Fire Brigade (later to be the London Fire Brigade).

It was believed that the fireman shown in ‘Saved’ was Captain Shaw and the girl in his arms was his daughter. However, the facts dispute this, as the entrance to Winchester House and the house in the painting are totally different. Furthermore, the fireman looks nothing like the young Captain Shaw and at the time of the painting, Shaw was 62 or 63 years old and was not known to have a young daughter.

History of ‘Saved’

Alderman James Wood of Southport County Borough Council originally purchased the painting in 1894 for an undisclosed amount of money. Alderman Wood presented ‘Saved’ to Southport County Borough Council (CBC) and it was put on display at the Fire Brigade headquarters for the next few years. In a small brigade this would also have served as the main fire station. At some point, probably between World War I and II, ‘Saved’ was placed in the storeroom below Southport council offices and vanished from public view.

By the late 1960s, John (known as Jack) Perkins who was the chief fire officer (CFO) of Southport CB FB, rediscovered the painting and put it back on display. However, during 1974, a major reorganisation of local government took place and Southport became part of the new Merseyside Metropolitan Authority.

Jack Perkins did not wish to see ‘Saved’ displayed in Liverpool (why, we do not know) so he convinced Southport CBC that the painting should go to the Fire Service Technical College (as it was then known) at Moreton-in-Marsh instead. The presentation to the college took place during mid 1973.

In 1995 the painting was accidentally damaged and was subsequently sent to an art conservator for cleaning and repair. The conservator pointed out that the painting had been damaged once before and had been (luckily) repaired “by someone who knew what they were doing”. He estimated that this damage took place around 1960, before ‘Saved’ came to the college.

“We are delighted to continue to display ‘Saved’ at the Fire Service College for visitors to enjoy,” said Allan House.

The Fire Service College at Moreton in Marsh, Gloucestershire is an award-winning leader in fire and emergency response training and is one of the largest operational training colleges worldwide. It specialises in dedicated training for professional fire services, emergency responders and a wide spectrum of commercial and public sector clients globally. The Fire Heritage Centre, which is located at the Fire Service College, is home to a collection of ‘Fire Art’ which, over the last 70 years, has come into the keeping of the College. The Fire Heritage Centre displays artefacts that demonstrate the evolution of firefighting in the UK and is also home to a collection of vintage fire appliances, consisting of six manual and four steamers as well as an impressive collection of art work, including ‘Saved’ by Charles Vigour.

Fire and Rescue International wishes to thank Alan House of the Fire Service College at Moreton-in-Marsh in Gloucestershire, UK, for assisting with the photograph of ‘Saved’ and its history.

2016

December

6 – 7 December 2016
Crisis Management and Preparedness Conference
The Middle East region has witnessed rapid urbanization, with a large influx of expatriate workforce and growing tourist numbers. Being a hub for major events, large shopping centres, tall skyscrapers and amusement parks, makes it vulnerable to crisis and disaster situations. These circumstances demand better tools, state of the art technologies and expertise in fire safety, emergency response, crisis management and disaster preparedness. The Crisis Management and Preparedness Conference will bring industry experts and relevant stakeholders to address challenges pertaining to crisis detection and suppression, emergency response planning, role of social media, crowd management, evacuation and city resilience
Venue: Dubai Marina, Dubai, United Arab Emirates
For more information visit: www.theaddress.com/en/hotels/the-address-dubai-marina/

7 – 8 December 2016
VdS-FireSafety Cologne 2016
Technical conferences are one or two day events, which serve to provide practical information and a transfer of know-how as well as an exchange of opinions. In the Exhibitor Forum, exhibitors present in detail technical innovations, important trends in the industry and their services. At the Science Forum Fire Protection, universities, technical colleges and research centres will present their latest topics in the form of a short presentation in the exhibition space
Venue: Germany
Contact: Regina Krenn
Tel. +49 (0) 221 77 66 481
Email: fachtagung@vds.de

8 – 10 December 2016
IFSEC India
The event is the centre for 15 000 industry buyers and decision makers attending to review the latest products and innovations, build business partnerships and to conduct business and make purchases
Venue: Pragati Maidan, New Delhi, India
For more information visit:
www.ubmindia.in/ifsec_india/home

11 – 13 December 2016
MEFSEC - The Middle East Fire, Security and Safety Exhibition and Conference
Running into its 17th edition this year, MEFSEC is the only Fire and Security event in Egypt, providing a platform for industry professionals to source new technologies, equipment and services from local and international manufacturers, suppliers and regional distributors
Venue: Cairo International Convention Centre, Egypt
Contact: Hesham Fouad
Tel: 20 2 2735 5837/3877
Email: hfouad@egytec.com

12 – 14 December 2016
International Trade Expo for Building and Fire Safety
The International Trade Expo for Building and Fire Safety is a three-day event that takes place at the International Convention City Bashundhara in Dhaka, Bangladesh. The expo attracts over 10 000 visitors or international brands and retailers to view the latest building, electrical and fire safety products. There are live product demonstrations as well as informative lecture tracks and panel discussions led by industry experts and government representatives. The expo intends to create an open platform to help educate, collaborate and build a community of support focusing on improving the workplace safety in Bangladesh
Venue: International Convention City Bashundhara
For more information visit:
www.buildingandfiresafety.com/

2017

January

22 – 24 January 2017
Intersec 2017
Intersec is the leading international meeting platform for the security and safety industry. For 18 years Intersec has proven to be the number one business platform in the MENA region and beyond. The last edition in January 2016 featured 1 280 exhibitors and welcomed 31 261 visitors from 128 countries which made it the largest and most international Intersec of all times
Venue: Dubai International Convention and Exhibition Centre
For more information visit:
www.messefrankfurt.com/frankfurt/en.html?nc

30 January – 2 February 2017
MEFSEC - The Middle East Fire, Security and Safety Exhibition and Conference
Arab Health is the largest gathering of healthcare and trade professionals in the MENA region. The Arab Health Congress 2017 featured 14 conferences offering CME points to attending medical professionals. Together with leading healthcare providers and medical device companies, Arab Health has developed a number of unique programmes that span across different modalities, giving healthcare practitioners first-hand experience with the latest technological advancements
Venue: Dubai International Convention and Exhibition Centre
For more information visit:
www.arabhealthonline.com

February

6 – 8 February 2017
Fire and Materials 2017
The 15th international conference on fire and materials, a major international forum on fire performance of materials and the products, into which they are made
Venue: 555 North Point Street, San Francisco
For more information visit:
www.intersciencecomms.co.uk/

30 January – 2 February 2017
MEFSEC - The Middle East Fire, Security and Safety Exhibition and Conference
The Arab Health Congress 2017 featured 14 conferences offering CME points to attending medical professionals
Venue: Dubai International Convention and Exhibition Centre
For more information visit:
www.arabhealthonline.com

22 February – 2 March 2017
IFE recognised tall building fire safety management course
Management of fire safety in tall buildings is essential if the risk of fire is to be kept within acceptable limits. Competent fire safety management is the key to fire prevention
Venue: Dubai, United Arab Emirates
For more information visit:
www.tallbuildingfiresafety.com/

March

22 February – 2 March 2017
IFE recognised tall building fire safety management course
Management of fire safety in tall buildings is essential if the risk of fire is to be kept within acceptable limits. Competent fire safety management is the key to fire prevention
Venue: Dubai, United Arab Emirates
For more information visit:
www.tallbuildingfiresafety.com/

21 – 23 Marsh 2017
Securex West Africa 2017
Securex West Africa is a three day event being held at the The Landmark Events Centre in Lagos, Nigeria
Venue: The Landmark Events Centre in Lagos, Nigeria
For more information visit:
www.securexwestafrica.com

28 – 30 March 2017
Flood and Coast Exhibition and Conference 2017
Led by the environment agency, this conference and exhibition attracts key stakeholders from the flood and coastal erosion risk management (FCRM) community
Venue: Telford International Centre, United Kingdom
For more information visit:
www.floodandcoast.com/

April

12 – 14 April 2017
Fire and Safety by Secutech International
Held concurrently with Secutech International, the 16th edition of International Fire and Safety Expo emphasise on the concept of smart fire and safety
Venue: Nangang Exhibition Centre, Taiwan
For more information visit:
www.newera.tw.messefrankfurt.com/taipei/en/visitors/welcome.html

24 – 29 April 2017
FDIC International
The quality of our world class instructors, classrooms, workshops, HOT evolutions and exhibits play a major role in the decision to attend FDIC International
Venue: Indiana Convention Centre and Lucas Oil Stadium, USA
For more information visit:
http://www.fdic.com/index.html

May

2 – 5 May 2017
IFSEC India
The event is the centre for 15 000 industry buyers and decision makers attending to review the latest products and innovations
Venue: Philippines
For more information visit:
www.ifsec.events/india/

I am your fire fighter

I spend half of my life away from my family, so I can protect you and your family.
I love you, even though I have never met you.
I would gladly die to save your life, or the lives of your neighbours.
I gladly risk injury to protect your property. I love my life.
I chose this life above anything else in the world.

I am your fire fighter. When something terrible happens in your life, you can always call me.
I am waiting for that call. It is what I live for.
I will come flying to your home or business to assist you in any way I can.
My food can wait to be eaten.
The training class I am taking can be paused because you called.

I am your fire fighter. I hurt. I cry. I laugh. I am human.
I learn to cope with neglect from you.
I have so many things to offer but somehow I get lost in the political shuffle.
I work and think and try to come up with ways to make your community better, safer.
I put all those things aside the minute the alarm rings and you need me.

I am your fire fighter. The call comes in… "There's smoke in my bedroom"
I am on the way. Only three of us on this fire truck but we'll do our best.
Blackness is all you see, choking, blinding, smoky, blackness.
A hand is touching you. It is rough and bulky, covered in a glove.
I hand you to my partner, then search on for someone else.

I am your fire fighter. Sunlight breaks on your face as you leave the burning structure.
Safe. Safe. Safe. Breathe the clean air. Breathe.
You hear a loud mechanical wailing coming from the building.
The one who brought you out, yells, "If we only had more men" and rushes back in.
Now he is dragging another who looks like him out the door.

I am that fire fighter. You watch as the fire truck drives slowly by.
The wailing siren breaks the quiet morning.
The slow parade of fire fighters marches past you.
The flag above you waves softly in the breeze but halfway down.
The flag over me is still. For you see…

I am your fire fighter.

Submitted by Joe Schoeman, division commander,
Overstrand Fire, Rescue and Disaster Management

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