

FIRE AND RESCUE INTERNATIONAL



Integrated fire, rescue, EMS and incident command technology

Volume 4 No 4



**TECHNICAL
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IN AN URBAN
ENVIRONMENT**

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

For more information contact the organiser

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Organiser

**FIRE AND RESCUE
INTERNATIONAL**

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Official magazine of South African Emergency Services Institute (SAESI)

Volume 4 No 4

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Comment

Fire and Rescue International (FRI) proudly presents its 40th edition. Enjoy the read!



Lee Raath-Brownie

Southern African Emergency Services Institute (SAESI) News

SAESI president, Dino Padayachee, shares his presidential message while branch chair Nonhlanhla Mkhwanazi reviews the KwaZulu-Natal Coastal Branch AGM and results of its recent recreational and sporting events. Morgan Molobi, branch chair for the Greater Northern Branch provides feedback on their recently held AGM, sporting events and presentation of awards.

In the news

The news this month features a number of conferences that were held at the end of last year. Unfortunately, we are restricted by space and are only able to publish the reviews in this issue.

Rope rescue

Colin Deiner discusses technical rope rescue in an urban environment, providing ideas on training, crew composition, response, lighting, incident command and communication. He details the considerations for the first arriving units, the incident site and the rescue. Deiner's article is accompanied by two informal incident reports with excerpts from the late Jim Gargan's book, 'Fuel for the Fire', on the Angelo Informal Settlement in Boksburg and the second written by Dion Tromp, who summarises the Ratanga Junction incident in 2005.

Fire service profile

We profile Mossel Bay Fire and Disaster Management Service, reflecting on its history, informing on its operational capacity, risk profile, major incidents, staffing and training, fire safety programme and challenges faced. We also interviewed Chief Joseph (Joey) Johnstone and introduce the man behind the uniform, his career timeline, management approach and the mentors that played a major role in his methodology.

Post-traumatic stress disorder (PTSD)

Complex post-traumatic stress disorder (C-PTSD) requires a multi-faceted approach and Mike Webber looks at strategies for treating C-PTSD. Webber provides a case study as reference in order for our readers to relate to its complexities and treatment solutions.

The Institution of Fire Engineers

We review the recently held conference, workshop and AGM of the Institution of Fire Engineers as well as its annual award ceremony.

Rescue Roundup

Julius Fleischman and Neville van Rensburg look at the importance of risk assessments at vehicle accident scenes, providing some hands on advice to keep our first responders safe onscene.

I trust you find this edition informative. Thank you to all our contributors for their continued support. Fire and Rescue International is your magazine. Read it, use it and share it!

Lee Raath-Brownie
Publisher

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This month's FRI Images winner!

Congratulations to

Michael Combrink for his photograph 'R2' taken with a Samsung A5 on an auto night setting.

Well done!

Michael Combrink wins this month's prize money of R 2 000!

Photo description:
The Rosenbauer Panther CA - 7 (R2) at OR Tambo International Airport.

Best rescue, fire or EMS photo wins R2 000!

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, incidents, emergencies and rescues.

Rules

- All photographs submitted must be high resolution (minimum 1 meg) in jpeg format
- 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

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 incident
- Camera, lens and settings used

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

>> ENTER NOW!





SAESI President's comment



Dino Padayachee

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

It appears to us that 2017 is going to be a year full of historic moments.

We will be officially launching SAESI House on 24 February 2017. This is a dream come true for SAESI after many years of research and hard work!

We are in the final stages of the professionalisation of our institution and we believe that the process will be completed shortly. This will be another milestone in the history of our wonderful Institution.

The Board is aware of the uncertainty within the emergency services environment regarding the qualifications. We are pleased to announce that the National Certificate for fire fighting has now been registered with the South African Qualification Authority (SAQA). We encourage all employers and professional fire fighters to adopt this qualification as the entry level standard within the industry. The process of Recognition of Prior Learning (RPL) and Credit

Accumulation and Transfer (CAT) is currently being finalised by a specialised task team under the guidance of Local Government Sector Education and Training Authority (LGSETA). Members will be shortly advised how to migrate into the new qualification. Further developments will be communicated to members in due course.

Preparations continue for our 31st conference, exhibition and training event, the biggest fire conference, exhibition and training event on the African Continent and we encourage all our members and service providers to start planning for this event.

We offer our condolences to the families that lost their loved ones during the festive season and during the recent floods. As our job is inherently high risk, we encourage all our emergency services personnel to be extra cautious when executing their functions.

Dino Padayachee, president, SAESI

Metropolitan Fire Chiefs' Conference held in California

By Dino Padayachee, president, SAESI



The United States of America Metropolitan Fire Chiefs' Conference was held on 13 to 17 May 2016 in Long Beach, California. The Southern African Emergency Services Institute (SAESI) was invited as a guest to attend this conference. SAESI president, Dino Padayachee, represented SAESI at this conference and used the opportunity to promote South Africa and SAESI. Fire chiefs from all over America and Hong Kong, England and Australia attended the conference. Various papers were presented on topics such as 'Disaster



The US Metropolitan Fire Chiefs' Conference was held in Long Beach, California

recovery – What happens when the response is over', 'Warehouse fire protection' and the 'Importance of pre-fire planning', 'First responder innovation', 'Protecting our first responders, (the importance of properly fitting protective gear), 'Civil unrest', 'Diversity in promotional and entry-level sections' (it's more important than ever), 'Fire service succession planning', 'Hong Kong Fire and Ambulance Services Academy' and the 'Southern African Emergency Services Institute'.

The Metropolitan Fire Chiefs Committee was established in 1965 at the International Association of Fire Chiefs (IAFC) convention in Miami, Florida. The goal of the committee was to address the increasing complex problems of large city fire departments that were becoming increasingly complex. One of the committee's early goals was to promote the establishment of a National Office of Fire Defence. This office was to have two primary goals ie 'To obtain federal money to aid cities in obtaining needed equipment' and 'To create a National Fire Academy'.

Today, the mission of the Metropolitan Fire Chiefs is to serve the large jurisdictions in the United States and abroad. As an advisory body, they provide input to the staff members of the National Fire Protection Association (NFPA) and the International Association of Fire Chiefs (IAFC). Membership includes approximately 200 metropolitan fire chiefs from the United States, Canada and numerous other countries abroad.

Chief Rhoda Mae Kerr was elected as the president of the Metro Fire Chiefs for the United States of America, succeeding Chief Ken Block. Chief Rhoda Mae Kerr, including several other fire chiefs indicated their intention to attend the 31st SAESI Conference to be held in November 2017. ▲





SAESI KZN Coastal Branch hosts AGM and fishing competition

By Nonhlanhla Mkhwanazi, chairperson, SAESI KZN Coastal Branch

SAESI KZN Coastal Branch committee

KwaZulu-Natal (KZN) Southern African Emergency Services Institute (SAESI) Coastal Branch held its annual general meeting (AGM) at eThekweni Municipality on 15 December 2016.

KwaDukuza Fire and Emergency Services' chief fire officer, Nonhlanhla Mkhwanazi, was appointed at the AGM as chairperson of the branch. She provided Fire and Rescue International with the following report back.

New members

Mkhwanazi welcomed the new

members and expressed her sincere gratitude for the support that she had received from KwaDukuza Municipality, under the leadership of Mayor Ricardo Mthembu and reassured KZN Coastal Branch members of her commitment in fulfilling her obligations as a prescribed officer with a view of furthering the objectives of the institute.

Long service awards

Members were awarded with 40 year and 30 Year Long Service awards, namely O Singh and CK Osman respectively including K Ramdayal, who received a 30 Year Long Service Award.

Mkhwanazi also expressed her gratitude for the valuable contribution that these members have made over the years and for being responsive to the needs of the communities. She also acknowledged the commitment and passion displayed by all emergency services personnel.

Upcoming branch meetings

The first KZN Coastal Branch meeting was held on 16 February 2017 at eThekweni Municipality and the second meeting is set to be held at Umhlatuze Municipality on 7 April 2017. The third meeting will take place on 14 July 2017 at KwaDukuza Municipality. The annual general meeting is scheduled for the 10 November 2017 at Engen Refinery.

Fishing competition

Bongokuhle Cele, chairperson of sports, said, "The KZN Coastal Branch successfully hosted the fishing competition as the first event for the financial year 2015/2016 from 4 to 5 March 2016 at Blue Lagoon Durban. The competition was open to all members of this branch. Non-members were allowed to take part at a fee to cover costs. Fifty members, 14 non-members and more than 15 on duty fire fighters from Central Fire Station attended this event."



Cole Maistry awarded first prize

"Cole Maistry of eThekweni Central Fire Station was awarded the first prize.



SAESI Greater Northern Branch AGM held at Madibeng Fire Station

By Morgan Molobi, chairperson, SAESI Greater Northern Branch

The Southern African Emergency Services Institute (SAESI) Greater Northern Branch held its annual general meeting (AGM) in Brits at Madibeng Fire Station on 28 October 2016.

Amongst the dignitaries, was member of the mayoral committee (MMC) for community development services, Marcus Machete; chief fire officer, Gordon Mafatle and disaster manager, Bob Rathebe. There were some delays due to a service delivery protest in Majakaneng Village, 12 kilometres from Madibeng Fire Station. Most fire fighters that were in attendance had to pass the affected area.

Morgan Molobi, station officer at Moretele Fire Station, of Bojanala Platinum District Municipality, was elected to be the branch chairperson after serving three years as acting chairperson of the branch. Additionally, there were 10 and 20 years long service awards handed over to more than 23 firemen within the branch. Different sporting activities were played on the day of the AGM and Capricorn Municipality manage to win the trophy after beating Madibeng 2-1.



Molobi said, "I feel grateful to work with office bearers, station representatives and members who are always supporting and are hands on. My vision and mission is to take SAESI Greater Northern Branch to the highest level and compete with other branches nationally and internationally by studies and participating in different activities within fire spheres."

10 Year Long Service Awards
SS Modise
LC Sehako
TN Mens
NM Molobi

AM Goilwekae
VT Mokanke
BE Monyai
PB Moatshe
OG Sikwe
TK Diphoko
NF Tsitsi
AM Lekgabe
H Maribana

20 Year Long Service Awards
AM Mphahlele
MP Ramoipone
ST Mpepele
MP Kabelo
TJ Kgatshe

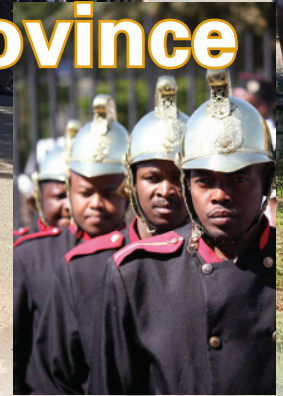
He caught the most fish including the biggest fish. He walked away with the floating trophy, jacket and reels. Melvin Ramlall of eThekweni Central Fire Station, who is also the deputy president of the institution, received the second prize, which included a bucket and a jacket. Suliman Ebrahim of the western region received the third prize of a fishing bag."

"I would like to thank all committee members and everyone who assisted in organising this event especially branch councillor, Niel Ellen, who assisted from the beginning till the end." 🇿



South Africa's Gauteng Province holds first PIER Conference

The conference started with a squad drill by fire fighters



During November 2016, Gauteng Province Cooperative Governance and Traditional Affairs (CoGTA) held its first Public Information and Education Relations (PIER) Conference held at the Aviator Hotel in Kempton Park with the objective to discuss ways that will lead to an integrated approach in fire and life safety education. The three-day conference, which started with a squad drill by fire fighters from Ekurhuleni Metropolitan Municipality, brought together

international and local speakers, creating common ground for information transfer and was convened by CoGTA in partnership with the PIER working group.

Rodney Berry, managing director of the Emergency Services Chaplaincy, opened with prayer and Ofentse Masibi, director of emergency services at Ekurhuleni Metropolitan Municipality, welcomed international guests, speakers and delegates, quoting Nelson Mandela in saying, "Education is the most powerful weapon which you can use to change the world." Paul Motsepe, chairperson of Gauteng PIER, outlined the purpose of the conference and said, "Our objective is singular. All provinces need to work together. What we are doing here today is making a difference out there tomorrow."

In his keynote address, Dr Elias Sithole, head of the Gauteng Provincial Disaster Management Centre (PDMC), said "The PIER Working Group is a true reflection of how intergovernmental relations should be managed. At the end of the day, it is not about us. It is about empowering our communities. The only way we can empower our communities, is to work as a collective." In conclusion Dr Sithole said, "We need to move away from the culture of 'reaction' to 'prevention' and with PIER that can be achieved".

The president of the Southern African Emergency Services Institute (SAESI), Dino Padayachee, provided a summary in the form of the acronym PIER, where P stands for Partnership, I for involvement, E for encouragement and R for responsibility.

Also addressing the conference was the director for Provincial Fire and Rescue Services at CoGTA, Roland Hendricks, who said that in addition to the PIER Working Group efforts, the province has developed the Fire and Rescue Services Vision 2030. Hendricks detailed the strategic framework for 'Project Phoenix' saying, "There is hope that better things are still coming. Let us spread the word and keep our communities safe".



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Canadian burns survivor, Steve Williams, provided background to the World Burn Foundation, highlighting the important role non-governmental organisations (NGOs) play in building resilient communities. Williams also provided feedback from various burn camps held globally including South Africa, Ghana, Korea, Peru, China, Kenya, Australia, Taiwan and the UK.

Syncock Matobako, head of PIER for City of Johannesburg detailed the role of PIER in the 21st Century and provided insight into the challenges faced and the important role that social media and the internet can play in reaching communities.

The National Disaster Management Centre's Lloyd Phetlhu gave an overview on the role of communities in fire safety and prevention. Phetlhu highlighted that the number of lives lost and injuries sustained due to fires were alarming and continues to increase at an unacceptable rate. "Currently, many fire services especially from poor areas are unable to provide adequate services to its communities," Phetlhu said. He added, "The other reality is that fire services in some municipalities are not taken seriously and there is also lack of community involvement, which is important because they are the first responders. This means they must be at the heart of strategies to prevent, mitigate, prepare for and respond to fires."

Rodney Eksteen, assistant director for Fire Brigade Services in the Western Cape provided insight into fire safety and prevention in the province. "The number of fire-related deaths has increased from an estimated 425 in 1980 to 2 276 in 2014,"



Eksteen highlighted. He said most fire-related deaths occur in the dwelling where the fire started and according to Statistics South Africa, most deaths are of kids between birth and six years. "This must prompt PIER to intensify their awareness campaigns to educate the community, especially the youth," Eksteen added. He said that 70 percent of fire-related deaths occur during sleeping hours. "During fire, there is limited time to escape; at the most, less than three minutes. Fire victims also often die from smoke inhalation. The Western Cape has embarked on the 'Smoke Alarms' campaigns. Smoke alarms save lives. Every home should have a smoke alarm. It does not cost much and it is easy to install," he concluded.

Ed Kirtley of the National Fire Prevention Association (NFPA) in the US provided background of his involvement with setting up the 'Learn-not-to-Burn'

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A number of municipalities received recognition for their work in PIER

► programme spearheaded by Rodney Eksteen. Kirtley, a retired fire chief of 24 years explained that the value of a life saved is far more valuable than money invested in response. "We need to report our incidents in 'lives/property saved' as opposed to our losses." Kirtley also said that every informal settlement has its own unique social structure and it's important to engage these social structures in our fire safety plans.

City of Ekurhuleni's Aaron Mafunda, outlined the importance of Community Emergency Response Team (CERT) programme. "This is a team in informal settlements trained to be able to prepare for and respond effectively to emergencies and fires until professional responders arrive," Mafunda said. He added that these teams are being taught basic fire fighting and provide a link between neighbourhood and professional responders.

Deputy chief fire officer of the City of Tshwane, Tanja Terblanche, spoke about the emergency services' contribution to women's education on disaster reduction highlighting the importance of addressing gender sensitivity in disaster risk reduction saying, "It's time to change the narrative. We need to acknowledge women not just as a vulnerable sector but as the frontline in defence and leaders in the battle against disaster risk."

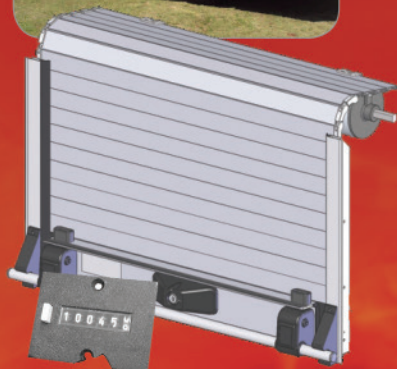
A number of presentations took place over the three-day period, too numerous to detail, some of which will be featured in upcoming editions of Fire and Rescue



International. It certainly provided insight into the important role of fire safety.

The conference also provided a platform for the acknowledgement of the hard work that was provided by the various Gauteng Province municipalities' PIER divisions. The following people received recognition: National Fire Prevention Association (NFPA), Ed Kirtley City of Johannesburg, Synock Matobako City of Tshwane, Tebogo Maake City of Ekurhuleni, Aaron Mafunda West Rand District Municipality, Paul Motsepe Lesedi Local Municipality, Bafana Mmollo Midvaal Local Municipality, Frans Mogale Emfuleni Local Municipality, Isaac Letsele ▲

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Integrated fire management: Removing the fear of fire

Fire! The very word is enough to evoke fear in the heart of anyone who has watched a wildfire, fanned by wind, burn uncontrolled like a tornado of heat, smoke and ash, bringing death and destruction to every living thing in its path.

But now, thanks to pioneering work by a global leader in the field and the development of the integrated fire management (IFM) approach, the fear of fire has been replaced by the knowledge that fire can be managed in a way that is beneficial to landowners, the environment and to local economies.

And, the IFM solution has not come too soon. Climatologists and environmentalists are warning that climate change is already bringing more hot dry, fire encouraging weather to countries across the globe.

Australia has been singled out as the country that will feel the impact most. Other affected countries include Chile, Argentina, Brazil and South Africa, not to mention the West Coast of the USA and Israel, which has recently survived wildfire of a duration and intensity never before experienced.

A recent US study published in the journal, Proceedings of the National Academy of Sciences, has found that climate change, over the last 30 years, has doubled the area affected by forest fires in the American West.

Professional fire fighters globally have recognised that there has to be an approach that seeks to prevent wildfire before it is ignited. They need a solution that recognises that fire is critical to a healthy environment and a vital tool for the effective management of land.

"Climate is really running the show in terms of what burns," states the study. "We should be getting ready for bigger fire years than those familiar to previous generations."

Now, a solution to this apparent contradiction has been developed by Kishugu, a South African company and successfully implemented across the globe through IFM.

More than two decades ago in the province of Mpumalanga – 350 kilometres from the country's economic heartland of Johannesburg – Kishugu was founded by Johan Heine, a fire fighting pilot and Chris de Bruno Austin, a forester with great experience in ground-based fire fighting.

Kishugu developed the concept of IFM and is implementing it through one of its subsidiaries, Working on Fire (WoF), in Africa, Australia, Chile, Brazil, the USA and Indonesia.

What made it possible for an entirely different kind of global business to emerge in Mpumalanga, is that the area's forestry, agricultural and conservation industries have one thing in common; they are all vulnerable to fire, in a hot and dry area that often turns into a tinder box.

Today, Kishugu is the world-leading specialist in IFM and is operational on five continents. Widely recognised as international best practice, IFM provides a comprehensive chain of inter-

linked services, ranging from fire awareness, fire prevention and early detection activities to risk mapping, hazard identification, prescribed burning, resource sharing and coordination, dispatch of fire prevention and wildfire fire fighting resources, damage rehabilitation and research.

"Encompassing all aspects of fire prevention, suppression and recovery, IFM is becoming increasingly important as climate change makes many areas in the world hotter and drier," says co-CEO, Chris de Bruno Austin.

In order to support their ambitious plans to provide the most comprehensive fire prevention, suppression and recovery services, these founders sought out small companies to meet core requirements, ranging from aircraft and pilot training and maintenance, to ground transport equipment and personal protection gear for fire fighters.

In addition to securing contracts from fire-prone private companies and public institutions, the company won a tender in 2003 to implement the South African Government's Working on Fire (WoF) programme. Working on Fire now employs more than 5 000 fully trained wildland and forest fire fighters, working in some 200 teams, making it South Africa's most successful rural job creation and skills development initiative. Internationally, Working on Fire employs almost 9 000 fire fighters and staff.

Kishugu is the Swahili word for an anthill. The name reflects the industriousness of ants, which, according to de Bruno Austin is "a perfect example of a broad collective that works for the common good".

"We protect millions of hectares of forests and grasslands for governments, forestry companies and commercial land owners," he continued. "Kishugu has aligned its activities with other fire prevention and fire fighting systems, as well as with the United Nations initiatives, to combat climate change."

A major development has been Kishugu's adoption of the international incident command system (ICS). ICS is a systematic, proactive approach, guiding organisations at all levels of government and the private sector to prepare for, prevent, respond to, recover from and mitigate the effects of incidents, regardless of the cause, size, location or complexity.

On another level, Kishugu has implemented through its public benefit organisation (PBO) subsidiary, a Global Environment Facility project. The aim of this project is to reduce climate change-induced risks in South Africa's highly vulnerable Fynbos Biome, the world's smallest but richest floral kingdom. The Fynbos Biome is expected to become more fire-prone under increasingly hot and dry conditions.

Kishugu PBO offers clients a platform to engage civil society, the private sector, donor and government agencies in partnership efforts to find sustainable solutions to socio-environmental problems.

Kishugu is systematically expanding its international footprint as it entrenches its position as the world leader in IFM. ▲

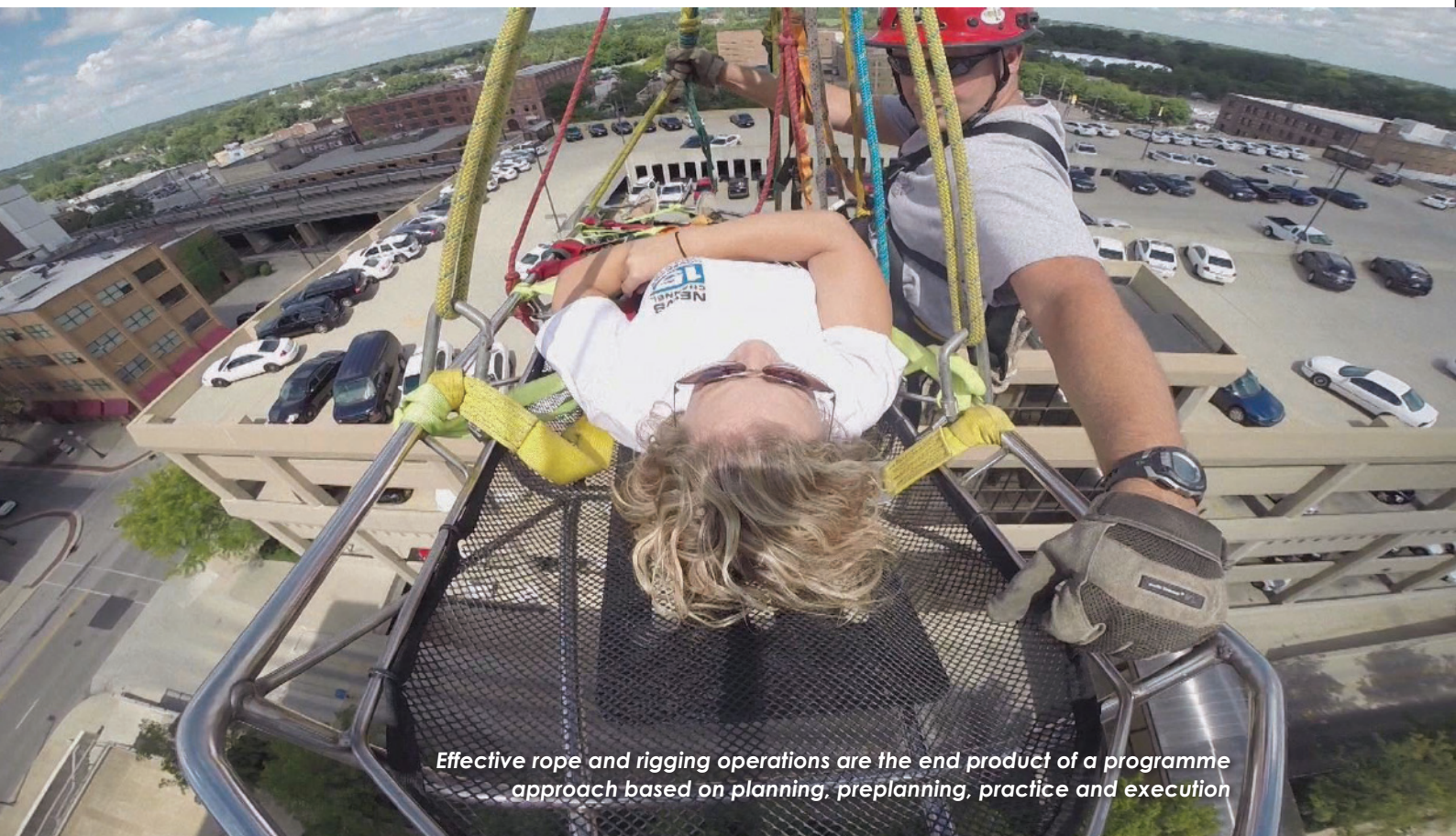


We use backburns to *fight fire with fire*

Backburning is to clear an area of scrub, bush, etc. by creating a new fire that burns in the opposite direction to the line of the advancing fire. Firefighters do this in a controlled manner when the conditions are right. This burnt stretch acts as a divide between the oncoming fire and the rest of the forest fuel and stops the fire from advancing any further.

Technical rope rescue in an urban environment

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



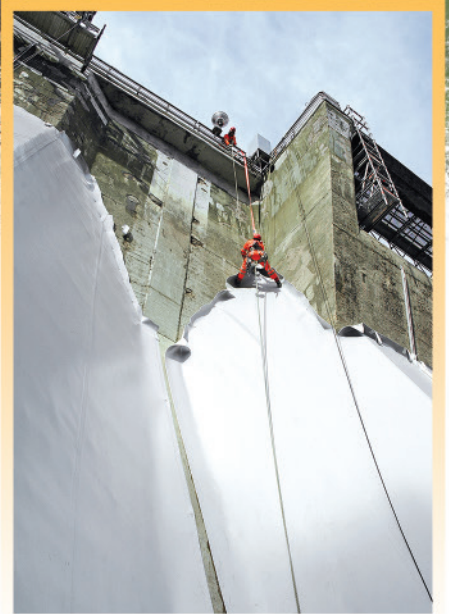
Effective rope and rigging operations are the end product of a programme approach based on planning, preplanning, practice and execution

On any weekend or holiday in many parts of the country, you are sure to find several people taking advantage of the numerous opportunities offered by the fine weather and great outdoors. People hiking, rock climbing, boating and participating in a number of other activities that could place them at risk of injuries caused by falling or themselves being struck by falling objects. When these injuries occur, it is usually far from any definitive medical care and in many cases these victims end up in locations that can only be reached from a position above them. The only way this can be achieved is by means of a rescuer descending by rescue rope and the only method they can be removed is to raise them up the same way they came down.

We are very fortunate in this country to have some of the best volunteer mountain search and rescue teams in the world. Organisations such as the Mountain Club of South Africa, the Off Road Rescue Unit (ORRU) and K9 Search and Rescue associations generally have an excellent working relationship and do a lot of planning and exercising in the wilderness environment. In many cases they have access to medical rescue aerial resources, which provides a huge advantage in the event of a wilderness search and rescue operation. We have, on occasions, witnessed these organisations assist city-based emergency services conduct high-angle rescue missions in the urban environment but mostly it is up to that emergency service to respond to and rescue victims using their own resources and expertise.

Incidents requiring advanced rope rescue response can happen anywhere and at any time. Many of you, I'm sure will recall a particularly challenging rope rescue done at an amusement park in Cape Town in 2005. When you consider the many height-related risks in an urban environment, you will have to include scaffolds, communication towers, tower cranes, bridges, high-rise buildings and transportation systems such as elevated motorways, to name a few. In certain parts of the country you will also encounter abandoned mine shafts and often you might also find that large informal settlements have arisen around these unprotected shafts. Although they might not be in any inner city areas, manufacturing and bulk storage sites will provide their own risks.

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Incidents requiring advanced rope rescue response can happen anywhere and at any time

- In order to better illustrate the challenges of rope rescue operations in the urban environment, I have included two informal reports of rope rescue operations that have taken place in this country some years back. Firstly, I asked highly regarded rope rescue expert, Dion Tromp, from High Angle Rescue and Access, to give us his thoughts on the rescue of 16 people trapped on a rollercoaster in Cape Town in January 2005. I also included a highly entertaining account by the legendary rescue instructor, Jim Gargan, of a rescue operation that took place in the Angelo Informal Settlement in Boksburg, Ekurhuleni, in the late nineties.

So what's the difference?

Apart from the obvious (terrain), there are a number of differences between rope rescue missions in the wilderness and the urban environment. In a city you will certainly be closer to a medical facility; you should have better access to on-scene intelligence and generally have access to more resources. On the other hand, a rescue mission in an urban environment could present additional risks such as the presence of hazardous materials, structural entrapment and confined spaces, not that you won't find confined spaces in the wilderness environment as witnessed during a rescue operation near Rustenburg in the North West Province in September 2014. It might

require the responding team to use additional equipment not normally related to rope rescue such as tripods, ventilation equipment, gas detectors and an array of other hazardous materials (hazmat) equipment.

Another, crucial, difference you will most likely encounter is that in a wilderness search and rescue (WSAR) incident, virtually all responders are dedicated WSAR practitioners and all their systems are designed and rigged for their environment. In an urban situation you will have a number of responders on scene and if you, as an emergency service, have not taken the trouble to train and equip your team specifically, you might find a diverse number of skills that need to be moulded into an effective rescue team.

My question to emergency services managers is, "Do you appreciate the height hazard posed by your area of responsibility and are you able to respond effectively when it's necessary or do you merely send your staff on the arbitrary rescue course when it comes around and hope that they will do everything right on the big day?"

Successful technical rope rescues do not just happen. Effective rope and rigging operations are the end product of a programme approach based on planning, preplanning, practice and execution.

Be prepared

Any preplanning exercise must start with clear objectives. It is impossible to inspect every site in your jurisdiction with a high-angle risk. The best you can do is to develop a general picture of what you could encounter and at least visit the most likely risk sites, which could then serve as a good indicator for your planning.

A lot of your preplanning will focus on the general aspects that should be present at each incident. This will include rope system construction, apparatus and equipment placement such as anchor points and personnel assignments along the system.

These actions then become part of your standard operating procedures (SOPs), which should be put in place upon arrival by the first-in units, after the safety assessment. This will then allow the incident commander (IC) and rescue sector leader with a continuum of predeterminations that will enable them to focus on the incident specific challenges and respond to any variables.

One thing I realised at a very early stage of my career is that there is a plethora of good rope rescue training institutions in the country that provide excellent technical rope rescue training. Many times I wish this was prevalent in other disciplines as well. Sending your staff on a course is the starting point but training should be continuous and skills must be kept sharp through ongoing in-service training and exercise. Improvisation during a rescue operation is fine only if it falls within the capacity of the equipment utilised and the system being used. To be able to safely improvise at the scene takes countless hours of training and familiarity with the equipment.

Your crew staffing requirements will almost never equal your crew staffing availability. This will necessitate the use of untrained personnel to assist in tasks such as raising, you always have guys that are not very clever but are able to lift heavy things and belay as well as helping to get a stretcher over the edge. It goes without saying ►



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Manufacturing and bulk storage sites provide their own risks

- ▶ that you will, however, always need a strong contingent of technical rope specialists.

Although the command system for a confined area high-angle rescue incident will be limited, it is important to identify the key staffing positions and assignments. Span-of-control considerations should include these positions and included in your standard operating procedures. A lot of crew management will be required to ensure that all technical aspects of the rescue are covered. Also identify sufficient back-up personnel for the raising and lowering operations. I have found that having a medic such as an emergency doctor, paramedic or emergency medical technician (EMT) at each station is extremely helpful for the following reasons:

1. The first team to reach the victim can do an initial assessment and perform any priority emergency medical care
2. A medical responder preparing the stretcher will have an appreciation of the type of system required for the injuries suffered by the victim and prepare the stretcher and its rigging accordingly
3. The patient reception area can be adequately prepared
4. Communication by the medical sector to the receiving trauma unit will be more effective

Although all personnel are collectively responsible for safety (and in the high-angle environment we always have a second person verification of systems), you still need an overall safety officer assigned to the command team. This person has a heap of responsibilities including logging of gas monitoring, monitoring the equipment utilised (for record purposes) and should have an overall picture of the various sectors that eventually make up the operation.

First arriving units

Among the first considerations after arrival should be the identification of anchor points that are 'bombproof'. These could include emergency vehicles, overhead walkways, telephone poles and other structural elements. During this planning ensure that there is a clear path between anchor points, raising/lowering devices and the target zone.

In situations where anchor points are limited, it might be necessary to employ emergency vehicles for this purpose. Remember that once you have committed a vehicle to serve as an anchor point, you will not be able to move it. Make sure that the optimal placement is carefully considered and that while serving its primary purpose, it should not congest the scene unnecessarily. And remember to remove the keys from the ignition

or, if it does not need a key, to place a notice across the steering wheel. Aerial appliances could, in certain cases, provide a number of command options such as an elevated anchor point, observation post or raising and lowering platform. The units are, however, large and heavy and their placement must be considered together with the benefit that could be derived from their utilisation.

In a confined environment you will want to ensure that all vehicles' engines are turned off to prevent exhaust gasses from affecting victims and personnel in the operational space.

Incident command

The operations section chief is the link between the (more strategic) incident commander (IC) and the (more task orientated) rescue team and will have to make many of the crucial calls without getting his/her hands on the operation itself.

As mentioned earlier the space in a high-angle rescue in an urban setting will most probably be limited and also draw a fair amount of onlookers. For this reason the IC must designate clear control perimeters.

The first zone (hot zone) of focus will be the area where the victim(s) are located and personnel in this zone should be limited. Under normal circumstances only the rescue team and rigging team should be located in the hot zone. The rescue team should consist of only two rescuers who will normally be lowered into the area and will be responsible for the initial emergency care and stabilisation of the victim. Loading the victim onto the stretcher and preparing the victim for the raising phase. One of these rescuers will also be the stretcher tender and will be raised alongside the victim. The space constraints in an urban situation might require a 'vertical lift', which will entail the stretcher being raised vertically with the rescuer in front of the stretcher facing the patient. It could be more of a challenge if the available space is so confined that the rescuer can't take up this position.

This might require him/her to be positioned either above or below the stretcher and severely limits any interface with the victim.

The other activity taking place within the hot zone will be the technical rescue operation ie rope systems and rigging and this area should be limited to personnel whose duties and responsibilities include the setup, operation and management of rescue systems. The rescue section leader and rescue safety officer could also be included in this area if it is the most advantages position to monitor the operation from.

All personnel operating at height in this area must be connected to a height safety device, which will provide optimum movement as well as fall protection. You might also need to build utility umbilicals into the system to ferry equipment and supplies to the various points in the hot zone.

The operations section chief will be located in the warm zone where liaison between the rescue teams and incident command will be easiest. The incident safety officer should also be located in this zone as it will provide more of the 'big picture'. When an additional number of 'heavy lifters' are required to assist with the raising of the stretcher, they might also be located here. Ensure that they have an unimpeded space to be able to do this task.

The incident command post will be located in the cold zone where it must provide direction and overall command and control. An officer responsible for personnel accountability and entry control into the warm and hot zones will also be in this zone as well as the rehabilitation area and any back-up and tactical reserve personnel.

Outside of these operational zones allowance must be made for a patient treatment area (PTA) and a public information area. The patient(s) wellbeing is the top priority and an important command consideration should be to determine the route that will be followed from where the patient is being raised to when

he/she is set down in the PTA and eventually moved to an ambulance.

The public information officer (PIO) assigned to the incident should establish an area for the media in a position that doesn't impede the rescue operation but provides them with as much information as is legally and ethically possible in the circumstances. Let me get on my soap box for a moment. Unfortunately the worldwide hunger for information has compromised our morals to such an extent that very little consideration is given to the privacy and dignity of the patient. How often do we see news feeds of people being rescued from some disaster situation in full view of glaring TV news cameras without any sympathy for their rights to privacy? Maybe all the many organisations 'governing' rescue response should develop protocols for this problem.

Additional personnel will be required for equipment and stretcher shuttles, lighting and other support operations not directly involved in the rescue but essential to the operation. Other jobs will always pop up. The work of support personnel keeps the operation moving in the proper direction.

The incident site

The site where the incident has happened can present a number of hazards that will not be present in the wilderness environment. It might be a dark location that will necessitate the placement of lighting systems and use of headlamps. Perimeter lighting systems in a confined environment might not provide sufficient lighting all over and corners or other structures could throw shadows over important areas. Optimal placement of the lights might be a challenge in a confined area. If you can't place them on the ground, consider hanging them from overhead structures. You can, however, only do this if you have spent time back at the station looking at your lighting units and thinking up ways of hooking them up to different structures. Your more creative staff members might even be able to build a variety of fastening devices, which could become a crucial part of your rescue rig's inventory.



Do you appreciate the height hazard posed by your area of responsibility and are you able to respond effectively?

The site might contain hazardous materials or be oxygen deficient. This could necessitate the response of a hazmat team or at least necessitate the breaking out of your confined space gear such as multi-gas detectors, extractor fans and breathing systems. Extractor fans could further clutter up an already limited workspace and its placement must once again be carefully considered.

In my experience urban accident sites have never been ideal for high-angle rescue operations. I have, however, found that there is almost always enough anchor points. Make sure, however, that they are indeed bombproof (BFRs and BFTs it needs to be).

The rescue

The objective will be to reach the victim(s) as safely and quickly as possible. To achieve this we must be able to locate him/her. There might be multiple victims. In a dark location it might be helpful to bring in your thermal imaging cameras. If you can see the victim from a higher position and if it is close enough for you to see him/her, you can try to make contact ▶

Abandoned mine shaft rescue

By the late Jim Gargan, Kure Beach, North Carolina.

An extract from his book, 'Fuel for the Fire: Getting Burned in South Africa.'

In this extract from Jim Gargan's book, 'Fuel for the Fire: Getting Burned in South Africa', Gargan describes a rescue operation that took place in the Angelo Informal Settlement in Boksburg, Ekurhuleni, in the late nineties.

It is 6h30pm. A person fell down a mine shaft! This is not uncommon here, as abandoned mines dot the countryside.

We loaded up and took the two command pickups, the rescue unit and the HP105 E-One tower/ladder. The scene was on the other end of town. Now get this; we went off the highway and travelled a dirt road about a quarter of a mile (0.4 kilometres). We were now deep into a tin-shanty town. Very narrow roads with literally hundreds of small

dwellings, all made out of tin, iron and whatever else would hold together.

This was not a ventilation shaft! This was the entry shaft of a very large mine probably dating to the 1800s. All the buildings were long gone. There, right in the middle of shanty town, was a huge sinkhole about 780 feet (238 metres) across and 150 feet (46 metres) deep. This was an inclined shaft, that is to say, it did not go straight down. The old concrete bases and steel rails were still visible. It ran on about a 65-degree angle. The locals surrounding the pit, had dumped their garbage there.

In one area there was a fine crop of marijuana. Evidently, these three entrepreneurs were tending

the crop when one of them, in a moment of ecstasy, decided he could fly! Must have been pretty good stuff! So, with a flap of his arms, over he went, into the pit! The other two were the ones who called, met us and guided us in. As the word spread, a multitude gathered, until we were surrounded by over a thousand people! This then became the Friday night place to be.

We could not see to the bottom of the pit, so we tried to bring the tower/ladder up a rather steep hill off the main dirt road. By cutting away fence posts and trees on the corner, we were able to make the swing. But the wheelbase was our downfall. As the driver started up the hill, the rear step bottomed out.

- ▶ by calling out to them, if they are able to communicate. This could give you quite a bit of information that will help the command team in deciding how to access the victim(s) and what equipment might be required to be sent down to where they are located.

Once the decision as to the method of victim access and extrication is decided on, the process of building systems should begin. This is a very intensive phase of the operation and sometimes so much is going on topside that the victim's situation becomes secondary. Don't let the patient get in the way of a good rescue. Remember, the entire operation stems from the victim's predicament.

When you are ready to lower the rescuers to the victim, that becomes the focus and clear communication is vital. When they reach the victims it might take a while to conduct a primary assessment, provide immediate emergency care and package the patient in preparation for the raising operation. It is important to keep the operations commander

and IC updates continuously, especially if they can't see the victim.

If the victim's condition is critical and the EMS crew has to perform advanced life support protocols they might require additional staff to be lowered as well as a range of additional medical equipment. EMS command must be ready for this and be able to respond immediately.


Another area where rescues in urban environments could differ from wilderness operations is communication. Wilderness incidents generally take place over a wide area and radio communications is the primary communications protocol. In the urban environment the distances are not that great and face-to-face communication may be all that is needed. If this is not possible and radio communications is the only way to go, you could face a further challenge of compromised reception. It might then be necessary to employ hard-line communication or, if a leaky

feeder system is present, it might be possible to tap into it.

Either way, you will have to provide hands-free communications systems to the rescuers and other personnel who will need both hands for rope work.

I am not drilling down into the technical aspects of rope systems in this article but rather focussing on command considerations. It does, however, go without saying that all rope systems used should be fitting. No rescuer should operate with fewer than two ropes attached to him. This also goes for any victims raised or lowered on rescue litters.

In closing

I have always been of the opinion (and have mentioned in previous articles) that you can gauge the effectiveness of a fire/rescue service by checking the condition of the blades on their cutting tools. Technical rope rescue operations often show just how well or how poorly a department is prepared on the command and tactical levels. This is the reason we exist. Let's do it well. 

Too bad; if we had been successful in getting within 75 feet (23 metres) of the pit, we would have had a good vantage point to look down into the pit and the platform lights would have served us well.

As it turned out, we had to rig up lighting all the way around and then we set up on one side with the two pickups with heavy steel racks on the fronts as the anchor points for the rappelling team. The team rigged two triple Z-lines. Across the pit from the anchor trucks was an old concrete bunker with just the floor and walls remaining. Obviously a remnant of the working mine. It was sitting right on the edge and was a bit undermined. It was, however, the only place all the way around the pit where a person could see almost to the bottom. Colin Deiner assigned me there so I could direct the descent with both hand signals and a radio. They laid down an 18 by 18 foot (5,5 by 5,5 metre) tarp over the edge to try to stop the cascade of dirt, garbage and debris from falling on them as they were lowered into the hole.

Two rescuers were lowered in together about 15 feet (4,6 metres) apart. As they went over the edge, they were no longer visible to the top crew, I directed the crew to lower them to a slight ledge, 80 feet (24,4 metres) down. From there they would walk down a 60-degree slope in soft sand to the bottom. They were talking to me on the radio. After a few anxious moments, they reported they had found the jumper and he was still alive! He was, however, buried and they had to dig him out, as he had rolled to the bottom. As the two rescuers, Colin "Ug" van Niekerk and Bennie Nel, proceeded to uncover the victim, the lead paramedic, Rhett Davis, was lowered along with a basket stretcher to the bottom. Rhett reported that the victim was suffering major head trauma and internal injuries. This kid was 18 years old; he must have been smoking some pretty good stuff to survive a 150 feet (45,7 metre) plunge!

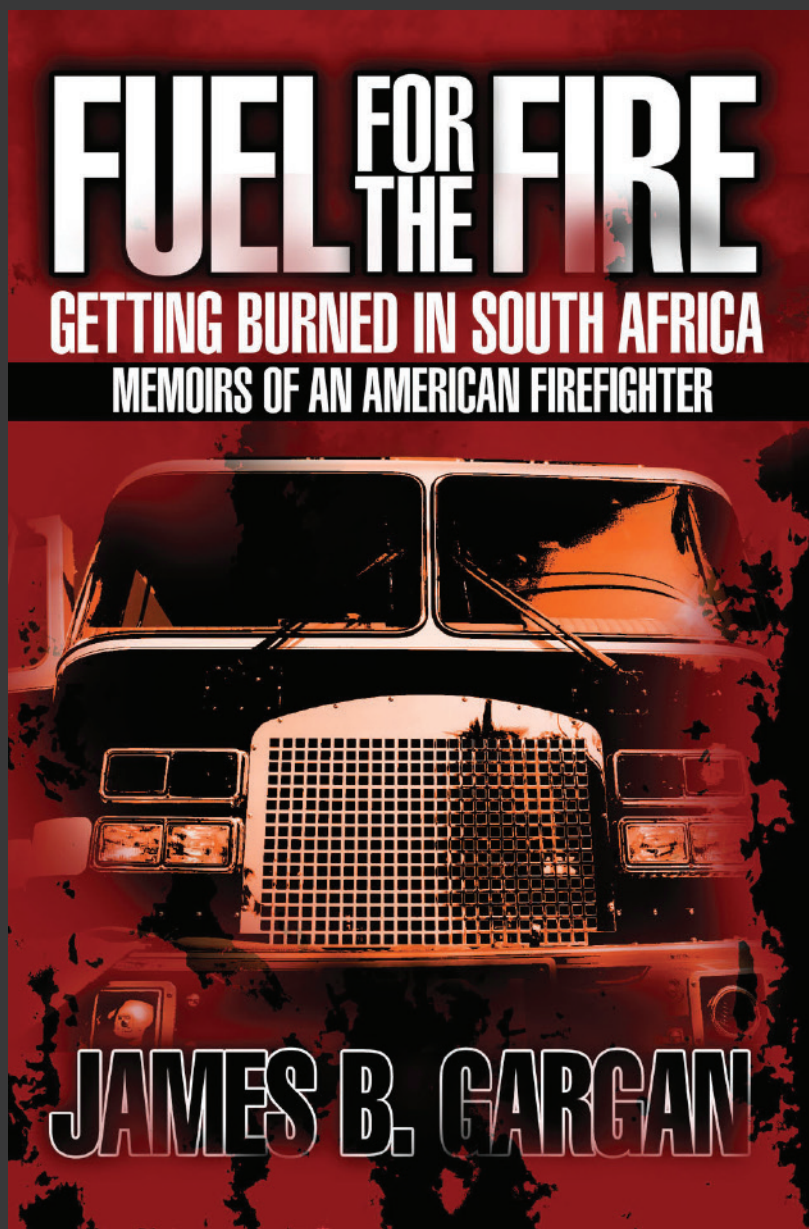
Rhett Davis, riding the stretcher, was pulled up and then the other

two came up. It was pretty wild, as dirt and rocks cascaded down on them. During the entire procedure, rats the size of cats roamed freely about the garbage. Big, shiny, furred babies! They were obviously fed better than the folks surrounding us! Ug van Niekerk reported that a bunch of our furry friends were also roaming the bottom of the pit. Remember, the shanty town is built within 30 feet surrounding the pit. Sleepwalkers beware!

We wrapped it up at 21h30. As the victim and Davis appeared at the lip, a huge cheer went up from the crowd. Not being able to communicate verbally takes on a special meaning when both parties know it was a job well done. Many expressed their thankfulness as we pushed

through the mob, picking up our gear. And yes, it was a job well done! An incredibly dangerous position to have to put men into. That soft sand at the bottom is just the start of a shaft that is probably a thousand feet (over 300 metres) deep. And the walls of the pit were constantly caving in. Unless you put up a cross where you think the victim lies, you have to 'go get 'em'!

I have described the Witwaters Rand gold reef that surround Jo'burg like a huge boomerang. Miners have been going deeper and deeper into this reef since 1859. Under where I am sitting in Station I, the tunnels radiate out all over the countryside like a spider web. As mines shut down and are abandoned, there will always be this type of rescue to be performed. 🕒



Ratanga Junction incident

By Dion Tromp, owner, High Angle Rescue and Access



The Cobra roller-coaster at Ratanga Junction in Cape Town

stuck with a full load of passengers on board and help was needed to evacuate the riders. A full complement of the local emergency services responded to the scene including City of Cape Town Fire and Rescue, High Angle Rescue Team, Metro EMS and various private agencies, to find that the Cobra had left the station and was resting almost at the top of its initial upward climb before its wild descent. The riders were all stuck firmly in their seats but were in no immediate danger of falling or being injured. Access to the left-hand side of the roller coaster was easy but there was a drop of approximately 25 metres below them.

Due to the confined work area and road layout close to the incident, it was not possible to use a Simon Snorkel or similar ladders to reach the riders, so it was decided to use high angle techniques instead.

“Please fetch the portable battery system and special plug so that we can release the ratcheting locking mechanism holding each rider in place”, we asked. After a long delay we were told that they had fetched the unit but the battery was flat and they were now charging the battery before we could use it! Don't you love it when a plan comes together?

In order to release the passengers (one at a time) we needed to first fit them into a safety harness while they were held firmly in their seats. They were then connected to a rope belay system anchored to the Cobra framework. We then used mechanical climbing techniques to reach the underside of their seat in order to connect the battery to the release mechanism, which enabled us to lift the ratchet system from their shoulders/chests. They were then assisted onto their seats and belayed to safety on the steps alongside the Cobra. ▲

A few weeks before the Ratanga Junction fun park opened in Cape Town in 1999, the management held an open day for the emergency services to visit the impressive facility and go for a ride on the star attraction, the Cobra roller-coaster.

As members of the emergency services, we were particularly interested in matters relating to the rescue of persons who might become trapped or stranded during their ride on the Cobra. We examined the framework and Cobra as closely as we could. A major concern was the possibility that a rider could fall out of his/her seat during the wild, upside-down ride. We were told that this was impossible as a ratcheting locking mechanism was pressed down firmly over the shoulders and chests of the riders, making it impossible for them to get of the seat unless the ratcheting lever was released. This could only be

done in the station area when the roller-coaster was stationary, as it needed an electrical current connected via a special electrical plug. In case of power outages, there were generators on hand and there was also a specially manufactured portable battery unit for dire emergencies. To connect this portable unit required some degree of gymnastic ability, as the plug socket was situated under the seat of the rider.

“This will be the last time that you visit us”, said the supervisor as he strapped us firmly into our seats and locked the ratchet lever into place, “unless you are visiting as paying guests! This roller-coaster is fail-safe and it is almost impossible for it to stop anywhere along the track after it has left the station as it is gravity-fed...”

“The Titanic will not sink, they said...”

In 2005, the emergency services received a call that the Cobra was

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Forestry companies

Fire engineers

Fire protection associations

Emergency medicine and medical response organisations

Rescue organisations ie Metro Rescue, USAR, wilderness, mountain, maritime/water, search dogs etc

South African Police Service (SAPS)

South African National Defence Force (SANDF)

South African Air Force (SAAF)

Mining fire and safety officers





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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 swapping
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

Application forms available on www.saesi2017.com

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Organiser

FIRE AND RESCUE INTERNATIONAL



Mossel Bay Fire and Disaster Management Services

The harbour town of Mossel Bay is situated on the beautiful Garden Route in the Southern Cape, South Africa. Mossel Bay is local municipality within the Eden District with a population of 140 000 and spreading across 2007 square kilometres. It is an important tourism and farming region of the Western Cape Province. The town's economy relied heavily on farming, fishing and its commercial harbour, which is the smallest in the Transnet Port Authority's stable of South African commercial harbours, until the 1969 discovery of natural offshore gas fields led to the development of the gas-to-liquids refinery operated by PetroSA. Tourism is another driver of Mossel Bay's economy.

Although it is today best known as the place at which the first Europeans landed on South African soil (Bartolomeu Dias and his crew arrived on 3 February 1488), Mossel Bay's human history can, as local archaeological deposits have revealed, be traced back more than 164 000 years.

The Bartolomeu Dias Museum Complex is the largest of the museums in Mossel Bay. Originally designed to celebrate the arrival of Bartolomeu Dias and his crew on 3 February 1488 and to protect the Post Office Tree, the complex now offers a wider look at the history of Mossel Bay from environmental, archaeological and cultural perspectives. It houses a number of fire fighting memorabilia preserving the rich history of fire fighting in Mossel Bay. It is also home to the famous 500 year old Post Office Tree and the Dias Cross, which marks the place of where the first religious building in South Africa was built.

The Port of Mossel Bay is the smallest commercial harbour on the South African coast. It caters mostly for the oil industry (off-shore gas was discovered in late 1980s) and for a small fishing fleet.

Fire service

Mossel Bay Fire and Disaster Management Service was established in 1987 and has a capital budget of R2 355 000 and an operating budget of R23 060 072. The service operates from the main fire station situated in the heart of Mossel Bay with a substation located in Great Brakriver. Fire and Rescue International met with Chief fire officer Joseph Johnston, senior manager for fire and disaster management services at Mossel Bay to provide insight into the history, structure, risk profile, training and infrastructure of this dedicated fire service.



Chief Joseph (Joey) Johnstone

With an operational area of 2007 square kilometres, the fire service has been serving the Mossel Bay community for 30 years and has been in its current location for



Mossel Bay falls within Eden District Municipality



- ▶ approximately 23 years. The service ensues a good working relationship with its local disaster management centre and fire protection association. The regional fire protection officer is Eden District Fire Services' chief fire officer, Freddie Thaver.

History

Chief Johnston provided some history saying, "The fire department function was initially a service rendered by volunteer members of Mossel Bay's technical department. Six fire department staff were appointed in 1987 when the fire service was officially established. These members only worked day shifts and responded from their home when emergency calls were received after hours. Four additional staff members were appointed six months after the establishment of the service."

During 1990, the fire service evolved to a full time fire service with a three-shift system, which is the current shift system. The fire service offices were located at the main municipal offices and the vehicles were based at the municipal stores. The vehicle fleet consisted of one pumper (still in use), one rescue vehicle and one service vehicle.

In 1993 the fire station was relocated to its current location, which was a mechanical workshop owned by Eden District Municipality and then converted to a fire station.

"This fire service has only had four chief fire officers since it was established," said Johnston. "The service has expanded in staff levels, vehicles and equipment as from 1990 up to the current status today."

Challenges

Some of the challenges faced by the service are the limited number of staff, number and size of fire stations and resources that they currently have for their area of responsibility as per SANS 10090, as well as budgetary constraints faced by the municipality.

We asked Chief Johnston how the service keeps up to date with the evolving fire industry to which he replied, "We are currently informed of changes in legislation and industrial practices either from our legal services or the chief fire officer, Brian Oliver of the designated fire service at PetroSA. Our staff members of the fire safety/prevention section attend training courses at the Fire Protection Association of South Africa (FPASA) College in Boksburg to keep abreast with industry changes. The knowledge gained at this type of training is then filtered back to the crews on shift by the station commander, Kobus van der Mescht. Operational officers and fire fighters attend regular specialised training courses in conjunction with the provincial fire brigade services at the Wolwekloof Training Academy, other fire services and provincial and national departments such as PetroSA Emergency Services, Metro EMS, National Sea Rescue Institute (NSRI), Southern Cape Fire Protection Association (SCFPA) and the South African Police Service (SAPS).

Risk profile

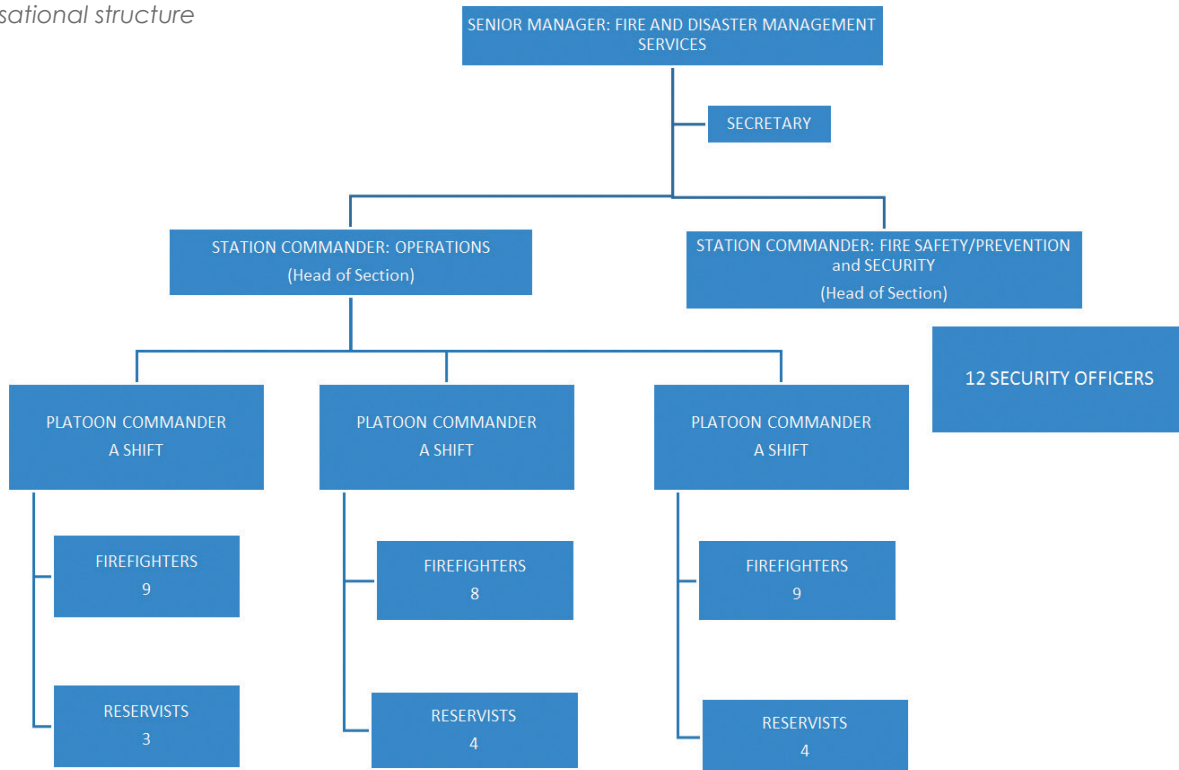
Mossel Bay Fire and Disaster Management Service, although a fairly small service, has quite a large risk profile, which includes the transportation of dangerous goods on the N2 freeway between Port Elizabeth and George and



The fire service has been serving the Mossel Bay community for 30 years



Organisational structure



transportation of hazardous materials and fuel from PetroSA site via major roads. It also has a number of major hazardous installations such as the PetroSA plant at Mossdustryia, the fuel tank storage area at Voorbaai, fuel stations, cold storage facilities, the fuel distribution and filling facility at Voorbaai and the fuel storage facilities at Mossel Bay Port.

Other risks include a number of informal settlements, high-rise buildings, small to large commercial and industrial premises, Mossel Bay Port, Mossel Bay Airfield and old age homes. Large rural areas with indigenous vegetation also test the service's capabilities while the area is also prone to floods and landslips.

Operations

In order to align itself with its risk profile, the operational shift has been divided into sections where the more senior members perform functions such as fire safety/prevention, public education and farm visits. All of the staff members on duty for the specific shift will respond to any emergency when called upon. The system leaves very little staff members at the fire station as most members of the shift are out in the field at any given time except at night when public education is done by the entire crew at shebeens and taverns to educate adults on fire safety.

"On specific days as identified by the shift platoon commander and the station commander operations, Ann Supra-Vertue, the operational staff is deployed throughout the area to do inspections and familiarisation of high risk areas, which enables us to preplan responses for emergency incidents," added Johnston.

"We have a three-shift system in place. Day shift is from 08h00 to 16h00, night shift from 16h00 to 08h00 and on Saturday and Sunday we have a 24-hour shift from 08h00 to 08h00. The staff works a day shift, a night shift the following day and then a day off.

Mossel Bay Fire and Disaster Management Service's areas of expertise include:

- Structural fires
- Vegetation fires
- Industrial fires
- Petrochemical fires
- Extrication
- Wilderness search and rescue (WSAR)
- Hazmat
- Swift water rescue
- High angle rescue
- Confined space rescue
- Wood and iron structure fires

Chief Johnston added, "We source in PetroSA when attending hazmat incidents seeing as they have all the equipment necessary to deal with such incidents. We also source in hazardous waste disposal companies when we need to disposed of such materials."

The service most commonly responds to motor vehicle accidents, structural fires, wood and iron structure fires, vegetation fires, drownings and floods.

We asked Chief Johnston what the equipment or apparatus shortfalls are within the service. He replied, "The biggest shortage is that of operational staff members. We have insufficient funding to employ more staff members and not enough funds for specialised training. We don't have any aerial appliances, self-contained breathing apparatus (SCBA) vehicles nor a command and control vehicle.

Incidents

The largest incidents attended to by the fire service includes numerous large vegetation fires, floods, petrochemical fires, rail transportation fires, industrial fires (factory fires) and helicopter and aircraft crashes



Platoon commander Audrey Gelderblom, station commander Ann Supra-Vertue, CFO Joseph Johnston and station commander Marthinus van der Mescht



Fire fighter Adrian Cairns, "There is always a teddy to calm children during an incident"

▶ The most unusual incident attended to by the service was a vegetation fire that broke out at Gondwana Game lodge just outside Mossel Bay enroute to Herbertsdale. This is one of the largest game reserves in the area where some of the big five are kept. "Upon arrival, the crew members did what they had to do, extinguish the fire as fire fighters do, just to discover that they were inside the lion's den. In all haste the crew jumped back into the vehicle and made off like a rocket to the closest game ranger who calmly informed them that the lions were moved from that area before their arrival. They returned to extinguish the remainder of the fire area with great caution," recalled Johnston.

Equipment

As with the majority of local municipality fire services, there is a shortage of equipment and apparatus. "For our area of responsibility in accordance with the SANS 10090 requirements, we do not have sufficient apparatus and equipment," said Johnston. The total combined mileage of the vehicles is 1 804 523 kms.

Make	Year	Age	Mileage
Skid units			
Ford Ranger 2,5 diesel LWB	2000	16 years	245 190
Isuzu double cab	2014	2 years	111 698
Nissan Hardbody NP300	2014	2 years	22 188
Light pumper (specialised application)			
Toyota Land Cruiser	2009	7 years	96 019
Medium pumpers			
Mercedes Benz 1528/54 Atego	2007	9 years	47 911
Mercedes Benz	1988	28 years	160 219
MAN	2011	5 years	40 712
Water tankers			
Volvo FL 6-18 4X2	1997	19 years	947 787
Iveco Tracker	2013	3 years	16 378
Large bush vehicle			
One Samil 20	1986	30 years	N/A
Swift water rescue			
Rubber duck with Yamaha 50hp engine	2007	9 years	N/A

Two trailers with 500 litre tanks and pumps

Skid units for remote area applications
2011 5 years

Service vehicles

Toyota hi-ace 13 seater	2007	9 years	245 190
Volkswagen Polo Playa 1,6	2009	7 years	369 354
Isuzu KB200i Fleetside	2007	9 Years	224 868
Chevrolet Avio	2015	1 Year	33 114

Rescue vehicles

Ford Ranger 2,5 diesel LWB	2014	2 Years	41 369
Isuzu KB 2,5 diesel LWB Fleetside	2008	8 Years	55 526

Staff

The total staff complement at the service includes five administrative staff members, 33 permanent staff members, 11 reservist fire fighters and eight volunteer fire fighters. Of those three fire fighters, two platoon commanders and one station commander: operations are female. Johnston added, "One can never have enough staff but we definitely do the best we can with what we have.

He detailed the staff recruitment policy, "If we have a vacant position, it is advertised and the persons that meet the requirements are shortlisted. These persons are then required to write a competency test and are interviewed."

The competencies below reflect the permanent staff's qualifications.

Qualification	Number of competent staff
Basic Fire fighting	4
Fire Fighter 1	10
Fire Fighter 2	11
Higher Certificate in Fire Technology (or equivalent)	2
Diploma in Fire Technology (or equivalent)	2
Higher Diploma in Fire Technology (or equivalent)	2
National Diploma: Fire Services Technology	1
Hazmat technician	10
High angle rescue	13
Advance high angle rescue	3
Wilderness search and rescue (WSAR)	5
Basic ambulance assistant (BAA)	18
Trench rescue	4
Confined space rescue	7
Swift water rescue	30
Incident command system (ICS) 100/200	11
Incident command system (ICS) 300/400	5



- Advance fire prevention 4
- Fire prevention strategies 5
- Fire investigation 4
- Peace officer (law enforcement officer) 13
- Skippers 7
- 4x4 off road driving 6
- Advance driving techniques 22
- Snake handling 7
- Vehicle extrication 10
- Advance petrochemical fire fighting 29
- Fire instructor 2
- SAMTRAC through NOSA 2
- Overhead crane operator 6
- Fire appliance reconditioning 1

- High angle rescue 4
- Advance high angle rescue 5
- Confined space rescue 4
- Swift water rescue 13
- ICS 100/200 7
- ICS 300/400 6
- Hazmat technician 22
- WSAR 7
- BAA 10
- Trench rescue 29
- Fire prevention strategies 2
- Advance fire prevention 2
- Fire investigation 6
- Peace officer 1
- Skipper's license
- 4x4 driving course
- Advance driving course
- Snake handling course
- Vehicle extrication
- Structural collapse
- Advance petrochemical firefighting
- Fire instructor

Training

"We do internal training on a daily basis on shift," said Johnston. "We also send our staff to other fire services, Wolwekloof Training Academy and other departments for specialised training. Mossel Bay Fire and Disaster Management Service also presents a basic fire fighting course on demand to assist the community. We support Petro SA Fire Training when required for assistance to present training courses. Combined training exercises are also performed with the National Sea Rescue Institute (NSRI), Metro EMS, South African Police Service (SAPS), provincial and municipal traffic as well as Prison Services and the National Port Authority.

Basic fire fighting training is done inhouse. The following training is outsourced:

- Firefighter I
- Firefighter II

Fire safety

Mossel Bay Fire and Disaster Management Service has a very proactive approach to fire safety. As part of the service's fire safety programme, they present the 'Learn Not To Burn' campaign. "We have a crèche, schools and old age homes public education outreach programme where we visit the various pre-schools, schools and old aged homes to bring the message across of fire safety. We allow pre-schools and schools to visit the fire station and present the 'Learn Not To Burn' campaign."



We were treated to a demonstration of skills



Fire fighter Marius Barnard, volunteer fire fighter Koos Brand and fire fighter Mario Meyer



Fire fighter Adrian Cairns and reservist fire fighter Shaun Ray-Michaels at the Great Brakriver substation



Medium pumper built by FES on a MAN TGM18 20 4x2 chassis



Meet Chief Joseph Johnston



CFO Joseph Johnston

Senior manager for fire and disaster management services at Mossel Bay Municipality, Joseph Johnston, started his career in the fire service 28 and a half years ago in 1988 as a recruit fire fighter at the Divisional Council of the Cape Fire Brigade. We met up with Chief Johnston during our visit to Mossel Bay and spoke to him about what made him become a fire fighter and his career in the fire service.

"I finished school at the end of 1987 when the country was in a bit of turmoil and study opportunity was scarce to attain a study

bursary from companies. My elder brother was at Technikon, which my parents funded and I could not be afforded the same opportunity at that time. I made numerous applications for apprenticeships and jobs at various companies and I was employed by I&J Fishing early in 1988 as a deck hand. Fresh out of school and into the big wide world of the adults or in this case, the big wide ocean," remembered Chief Johnston.

He continued, "On one of my weekend stayovers, I discovered a letter that was sent form the

► Burn' package to them," said Johnston. The service likewise forms part of the Child Protection Week hosted by Social Services Department of the municipality.

He added, "We have a training programme for the teachers of the crèches as well as the nursing staff at the old age homes and care facilities. A basic fire fighting course is presented to the teachers."

They also have an 'Adopt-a-Community' programme where each shift adopts a community in one of the high risk areas. General fire safety education is presented via a door-to-door campaign. "We regularly visit the various taverns/shebeens in our area. The fire fighters discuss fire safety related matters with the patrons."

Fire prevention inspections are done on a daily basis to ensure that persons adhere to the requirements as well as to educate the public on fire safety related matters.

The 'Learn Not To Burn' literature can be accessed on the municipal website under the dropdown 'How do I – prevent fires and injuries in my community'. Beach safety tips can be accessed on the municipal website under the dropdown 'How do I – Ensure beach and other water safety'.

Some of the operational fire fighting staff is used to perform part of the fire prevention function under the guidance of station commander Kobus van der Mescht and they may not always be available to perform these duties because of operational requirements. These staff members received training at the Fire Protection Association of Southern Africa (FPASA) College in Boksburg to equip them to perform the functions as required. All of the staff members have been trained as peace officers, which enable them to do by-law and legislative enforcement as per the delegation of the chief fire officer under the Fire Brigade Services Act.

"There is currently a vacant platoon commander post on the organogram that I hope to fill in the next financial year if the council approve it, which would lighten the burden on the operational staff members," added Johnston.

Statistics

1. Population: Plus minus 140 000
 2. Size of area covered: 2007 square kilometres
 3. Emergency calls: 1 075
 4. Incidents
- Number of MVAs: 286
 Total number of fires:
 Structural fires (formal): 34
 Structural fires (informal): 66
 Industrial fires: 4
 Wildfires fires: 246
 Vehicle fires: 16
 Hazmat incidents: 4
 Swift water rescues: 6
 Aviation incidents: 5
 Structural collapse: 2
 Special services/rescues (catch and release of snakes): 228
 Other: 117
- These calls include the following: water delivery, cleaning of roads, humanitarian services, floods, etc.

In his interview, Chief Johnston offered the following advice, "Stand strong against the challenges that we, as emergency services members, have to face on a daily basis, either from the members of the community or the municipality we work for and serve. Nobody is an island and, as the saying goes, we make miracles happen by means of begging, borrowing and stealing (ideas) to get to our objectives and goals. Keep abreast with changes in legislation and try your utmost to become part and parcel of solutions to the challenges that municipalities and fire services face." ▲



then Divisional Council of the Cape Fire Brigade, where I made application to be a fireman, which informed me of an interview I had to attend the Monday morning at the Ottery Fire Station. After going through a rigorous selection and interview process I began my career on 1 July 1988."

"My cousin, the late Mark Tinker, was the first fire fighter in our family who became a platoon officer before he left to venture into business. I was the second person in our family who became a fire fighter," recalled Johnston.

Career timeline

Chief Johnstone started his career as a recruit fire fighter in 1988 at the Divisional Council of the Cape Fire Brigade and was promoted to junior fire fighter in 1989 and fire fighter in 1990. In 1998 he was promoted to acting leading fire fighter at the South Peninsula Fire and Rescue Services (organisational change) and then in 1999, Johnston was promoted to assistant divisional officer, control centre for the South Peninsula Municipality.

At the end of 1999, he was promoted to assistant divisional officer, training until the beginning of 2007, when the municipalities amalgamated into a metro forming the City of Cape Town. Johnstone was appointed as assistant divisional officer, operations until November 2007 at City of Cape Town Fire and Rescue Service.

On 1 December 2007 to date, Johnston took on the position of chief fire officer for Mossel Bay Municipality. From 2013 to 2014, he served as the deputy chairperson of the Western Cape Chief Fire Officers Forum and as chairperson, from 2015 to 2016.

Mentors

During the interview, we asked Chief Johnston about his mentors and the roles they played in his career choice. He said, "I had many mentors who provided me with many skills. My parents taught me to stand on my feet, be tough and to face the world head on. My

father introduced me to my pet hobby, diving and spearfishing, from a young age and to be in nature as man was intended to be.

The teachers that taught me at school when corporal punishment was still the order of the day enforced discipline and respect by means of fear to achieve results. And yes, even though I hated/disliked some of them, they moulded us to be leaders at the end of the day."

"There were also many work colleagues who were inspirational in my career development. One that stand out is Clive Mackay, who was the previous chief fire officer of Mossel Bay Municipality. We worked together when I began my career and he always motivated a few of us 'rookies' to study and keep studying to attain the highest SAFSI (now SAESI) qualifications that we could."

"Then there is Mahatma Gandhi and Nelson Mandela. Their names alone say it all. Great leaders with great ideologies."

Johnston said, when we asked what factors motivated him to stay in the industry, "To provide the best service to the community by continually improving my skills and knowledge as well as sharing it with subordinates and senior management. Being able to skill individuals to a level that has a positive impact on the service and the community. The "thank you, job well done" that the community reports back to us."

We also asked him at which point in his career did he realise that his ambition was to become a CFO and he replied, "I always joked about becoming a CFO someday in a place like 'Pit Sonder Water'. In 2007 I was at a stage where I considered going abroad to work in the oil and gas industry. The advert for the position of CFO came up in Mossel Bay and I applied, having the required qualifications. I was contacted three months later and informed that I was the successful

candidate for the position, which I am in still."

When asked whether he misses the operational life, Johnston replied, "Yes I do but I enjoy the challenge at hand. I am a person that interacts with the operational staff on a daily basis and make it my business to find out how my staff is doing. At times I take a drive out to fire and rescue calls and get physically involved with operations and I leave the incident command to the station and platoon commanders. I do test calls and situation drills, the old school manner, at the fire stations to keep the staff on their toes and lend an ear to anyone who want to share something with me."

The biggest impact on his career thus far has being able to wake up every morning and saying a prayer that he has been spared to see another day. He added, "Overcoming hurdles and challenges in my everyday life, personally and professionally. Being able to think outside the box and find solutions for challenges in the workplace to better the work environment for the entire staff. Understanding and getting to grips with human behaviour, which guided me to become a leader and mentor to others. Sharing information with other fire chiefs and networking to enhance best practice for fire fighters to be the best professionals they can be."

Advise

His advice to fire fighters is, "Take every opportunity with both hands that come your way to educate and skill yourself and never stand back for any challenge that that may cross your path."

His thoughts to share with fellow CFOs are, "Stay positive and treat staff members as you want to be treated. Keep abreast with the changing times and challenges we live in and conform to legislative requirements as it is rolled out. Have a cup of tea or coffee with your staff and laugh with them as they tell funny stories and make jokes. You were where they are and once a fire fighter, always a fire fighter." 🔥

The curse of complex post-traumatic stress disorder

By Mike Webber, counselling psychologist

The fire and emergency services are an extremely demanding occupational environment to work within that exposes its members to multi-dimensional stressors. Fire services are of necessity hierarchically and bureaucratically organised structures that lead to significantly higher organisational stressors than most other professions. Due to the nature of emergency operations, a high premium is placed on discipline, conformity and group homogeneity that results in a relatively controlling management approach. This mitigates against a consultative or participatory management style. This is not necessarily to criticise such a management style that may maintain a cohesive and effective response to emergency incidents but it is nevertheless a difficult environment for individuals to work in outside of emergency incidents.

In addition, emergency services have undergone significant transformation over the past 20 years. Local government transformation and new labour-related legislation have significantly changed the structure, functions and role of fire and emergency services. These rapid and far-reaching changes have been difficult for members of fire services to work through and have been perceived as being stressful. And let's not even get into the challenges that women face in the fire and emergency services! But that's a story for another article.

Then there's the nature of the work. The work of the emergency services is both physically, emotionally and intellectually challenging. The working hours spent away from home are long. Personnel are regularly expected to confront complex, high risk situations that test both their physical strength and ingenuity. In addition, many of these situations involve death, mutilated and burnt bodies, grossly disfiguring injuries, human suffering and loss that test the emotional resources of crews.

However, whilst previous articles on PTSD in this journal focussed on significant or catastrophic traumatic exposures that result in 'classic' PTSD, there is a far more sinister form of trauma prevalent in the emergency services. Prolonged exposure to traumatic events, such as the death or injury to colleagues, handling lifeless bodies, working with traumatised patients, witnessing violence and working under threat results in a constellation of distressing symptoms known as complex post-traumatic stress disorder (C-PTSD). Whilst we don't have any data regarding its incidence or prevalence in South African Emergency Services, my 30 years of experience working both within operations in the fire and emergency services and as a psychologist over the past 10 years suggests that it is an endemic disorder in the emergency services. It may constitute an unseen and unreported epidemic. Regrettably, for many members of the emergency services that suffer from this condition, their maladaptive behaviours, symptoms, emotions and coping mechanisms become their new 'normal'.

Complex post-traumatic stress disorder (C-PTSD)

C-PTSD is not currently classified as a specific mental disorder in either the official diagnostic system used in South Africa, the International Classification of Diseases and Related Disorders – 10th Edition (ICD-10) or the Diagnostic and Statistical Manual of Mental Disorders – fifth edition (DSM-5) that the mental health profession is so fond of. The closest 'official' diagnosis is "Disorders of extreme stress not otherwise specified." However, in practice, a sufferer is probably more likely to be misdiagnosed with either depression or Borderline Personality Disorder (BPD). This is unfortunate as the treatment for depression misses the bigger picture and aetiology here and treatment for BPD differs significantly from that needed for C-PTSD.

C-PTSD develops gradually over time with repeated exposures to trauma, such as community violence eg as

in South African townships, being subjected to violence (abused women, abused children, molested children, abduction victims, etc), being exposed to threats of violence (by communities or gang members at emergency incidents), dangers inherent in fire fighting operations or crime suppression, dealing with dead and dying patients and continually treating gruesome injuries. A significant number of C-PTSD sufferers will exhibit the typical symptoms of PTSD but are far more likely to exhibit some of the following:

- Emotional dysregulation (angry outbursts, generally grumpy behaviour and even aggression – physical, verbal and emotional)
- Emotional blunting (lack of empathy and flat emotion except for anger – switching off to feelings)
- Loss of pleasure in social relationships, activities and life that were previously pleasurable (anhedonia)
- Feelings of hopelessness and loss of meaning in life and career
- Feelings of shame and guilt
- Increasing substance abuse (including prescription and over-the-counter medications, smoking, alcohol consumption and sometimes illegal substances)
- Social isolation and mistrust
- Suicidal thinking

One need not tick all of the above boxes; just experiencing more than three of the above symptoms may be suggestive of a problem that would benefit from treatment.

C-PTSD case study

This case study does not represent a single individual as it would be unfair to use one single case that may result in the person being identified. This is rather a composite case study that draws on several cases of C-PTSD that I have seen in my practice going back to 2004 that illustrate the typical features of a C-PTSD case.

John Smith is a senior fire fighter in a city fire and emergency service. He has ten years' experience in this one fire service in the operations division. After being appointed he underwent the Firefighter I and II courses and became a basic life support (BLS) emergency care practitioner. He has subsequently moved on to train as an intermediate life support (ILS) emergency care practitioner and trained as both a hazmat technician and rescue diver. He is a special appliance operator/driver. He has passed the SAESI Higher Certificate in Fire Technology but has experienced difficulty in passing the Diploma in Fire Technology. He ascribes this to fatigue, shift-work and a lack of lectures. He does not acknowledge the extent to which his alcohol consumption negatively affects his ability to study. He has diverse experience in structural fire fighting, informal settlement fire fighting, wildland fire fighting, emergency medical response, rescue work (both vehicle, high angle and water) and hazmat incidents.

In spite of his operational experience over a decade, John has not reported any catastrophic traumatic exposure that has resulted in unpleasant symptoms such as flashbacks, nightmares, hypervigilance, avoidance, insomnia or fluctuating emotions. He has, however,

Respect PTSD

It's as real as any visible injury.

experienced a number of events that he tends to gloss over and trivialise. These include minor burns from a structural fire, medical treatment for smoke inhalation, a fractured humerus from a fall into a kloof at a bushfire and a snakebite. He was also the driver of a response vehicle that was struck by another vehicle and rolled whilst en route to a call in which his partner was killed. Another colleague was also killed at the scene of a motor vehicle accident (MVA) that they were attending on a freeway at night when a drunken driver drove through the barriers.

John has been married to Janet for six years and they have two small preschool children. Approximately three years ago during an argument with his wife, she shouted at him

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Institution of Fire Engineers SA holds conference, workshop and 64th AGM

Andrew Greig, treasurer of IFE, Andries Ramotso, outgoing president and Louise Greig, secretary of IFE

The Institution of Fire Engineers (IFE) held its 64th annual general meeting (AGM) followed by a conference and workshop themed 'High Performance Fire Engineering' on 2 and 3 November 2016 at the Killarney Country Club in Johannesburg.

The conference comprised a number of presentations including 'A recent large South African shopping mall - A rational design and occupancy clearance case study' by Trevor Williams of TWCE Consulting Engineers; 'Shopping mall fires - The hazards, fire fighting situations and tragedies presented by Alex Gloster of eThekweni Fire and Emergency Services; 'Comparing baseline performance and performance-based design, Simon Goodhead of Jensen Hughes, Atlanta USA via live feed and Jason Pritchard of Mot MacDonald in the UK, whose presentation featured the Bahrain Shopping Centre.

The 'High Performance Fire Engineering' workshop followed, which was run by Dr Frank Mendham and Kevin Blackie from Australia. Mike Webber took office as the new president of IFE, taking over from outgoing president, Andries Ramotso.

Ramotso thanked all his predecessors and council members during his opening speech and remarked that it was a privilege to have served two terms as president of the IFE. He joined the IFE in 2003 and was first elected to the branch council in 2008. He was elected by council as branch president in 2012 for a two-year term and was re-elected for another two-year term from 2014 to 2016. He indicated that during his tenure, IFE had presented full time courses, hosted numerous workshops and facilitated engagement with provincial fire and

disaster management to agree to development of local fire fighters on issues relating to fire safety engineering.

Webber pointed out some of the challenges he will pursue during his time as president such as a depressed economy, maintaining member numbers, a weakening Rand, increasing costs, decreasing government support and revenues and a changing educational institutional framework. He likewise mentioned the lack of resources within fire services as a challenge to



Incoming president, Mike Webber and outgoing president, Andries Ramotso



Salome van den Berg, CEO of SAESI, Mike Webber and Dino Padayachee, president of SAESI

▶ be dealt with. Webber joined the IFE in 1993 and was elected to council in 2013 and will serve as president for a term of two years. He said that he anticipates a growing role for the branch in the development of fire and life safety standards and of fire science, by continuing to contribute to the development of South African National Standards (SANS). He would also like to see the IFE influencing national policy regarding fire service training and the statutory environment.

Presentations

The first presentation, 'A recent large South African shopping mall - A rational design and occupancy clearance case study' was presented by Trevor Williams of TWCE Consulting Engineers. Performance based engineering principles were applied with regards to the design and occupancy clearance of a shopping mall, in the event of a fire. Williams referred to the legislative framework that applies in terms of National Building Regulations, Building Standard Act (103 of 1977) and South African National Standards 10400-T. Reference was made to special risks, which was a bulk liquid petroleum gas (LPG) area. Another special fire risk was that of special events such as the erection of a large Christmas tree, commonly found over the festive period in most malls.

Alex Gloster, training manager, eThekweni Metro Fire and Emergency Services presented 'Shopping mall fires: The hazards, fire fighting situations and

tragedies'. Gloster used The Workshop Shopping Centre, The Pavillion Westville and Gateway Shopping Centre as case studies. His presentation pertained to the hazards, fire fighting situations and tragedies regarding shopping mall fires. He discussed public behaviour and escape dynamics, including expectations versus reality when modelling evacuee flow, businesses and respective behaviour as well as the commercial environment in the event of a fire. Gloster referenced the South African National Standards, (SANS) 10177, which relates to fire testing of materials, components and elements used in buildings, SANS 10400, concerning the application of the national building regulations and SANS 1850, which pertains to the design and manufacture of commercial kitchen extraction/ventilation systems.

Simon Goodhead, director at Jensen Hughes, used four individual case studies to demonstrate the dynamics of baseline performance and performance based design (PBD). He introduced his presentation by emphasising the importance of initial discussion with authority having jurisdiction (AHJ) such as fire and building department officials and determining the baseline performance criteria for a prospective project. He elaborated on the principles of an engineering analysis, otherwise known as a rational analysis, PBD and/or alternative means and methods. He said, "PBD is a design process whose fire safety solutions are

designed to achieve a specified goal for a specified use or application. The process is generally used for achieving the engineering analysis and enables greater degree of flexibility and higher levels of safety." He also discussed the reasons for using PBD, the PBD assessment model, advantages as well as disadvantages thereof and the goals of PBD. He discussed the various stakeholders involved, respective responsibilities and managing approval risks.

Jason Pritchard, principal fire engineer at Mott MacDonald UK, presented a case study on the construction principles of Bahrain Shopping Centre. Pritchard provided an analysis of the structure of the three-storey shopping mall, statistics on the shopping mall in terms of traffic, retail space, dining outlets, additional structures such as a waterpark and two premium hotels and the fire engineering objectives, namely life safety and property safety. Key topics discussed included means of escape, smoke control, fire detection and alarm systems, fire suppression, fire spread control, facilities for civil defence and computer modelling of evacuation and fire dynamics simulator. The evacuation modelling is a Mott MacDonald in-house software package, which simulated a full-scale evacuation of city centre Bahrain. The fire dynamics simulator simulated the visibility and temperature of the atrium of Bahrain Shopping Mall in an event of a fire.

'High Performance Fire Engineering' workshop

IFE held a workshop on 3 November 2015, themed 'High Performance Fire Engineering'. The workshop was presented by industrial fire and risk engineers, Dr Frank Mendham and Kevin Blackie of Blackie Mendham, Australia.

The workshop consisted of three parts theory and two parts practical. The theory sessions included risk context, assessment and treatment, questioning why the wrong fire risks are often assessed, detailed tools available to engineers and risk-based versus prescriptive solutions.

The initial practical sessions allowed participants to apply



risk analysis tools to a case study and communicate the fire risk management findings. The case study involved a fire on board a Carnival Cruise liner, Ecstasy, on 20 July 1998. The proposed outcome for participants was a basic understanding of the approach to fire risk and fire systems performance and capability.

Annual awards

In addition, IFE presented its annual awards and certificates to graduates, members and affiliate organisation members on 2 November 2016 following the AGM.

Companies that joined as new affiliate organisation members:

- Instant Systems, Botswana
- Prana FM, South Africa and Middle East
- UTC Fire and Security, South Africa
- Valdo Engineering, Cape Town

The following members of the South African branch were elected into higher grades of membership:

Technician grade

- Johan Jonstone, Goven Mbeki Municipality

Graduate grade

- Shalen Bechoo, Meganewton
- Brinley Brauns, Msunduzi Fire and Rescue
- Hugh Brown, City of Johannesburg Emergency Medical Service
- Daniel de Kock, Breede Valley Municipality
- Belinda Dempers, Aurecon Group
- Gabriel Diedericks, Weatherford Oil and Tool
- Nkulumo Dube, eThekweni Fire and Emergency Service
- Sanjeev Gareeb, Airports Company Durban
- Chris Geylen, Chimera Fire Protection
- Iforce Hikabanze, Lundazi District Council, Zambia
- Hannes Jonker, King Khalid International Airport, Saudi Arabia
- Sifiso Majozi, eThekweni Fire and Emergency Service
- John Netherlands, Cross Fire Management
- Innocent Ngidi, eThekweni Fire and Emergency Service
- Terrance Niemach, Fire Consultant

- Andrew Sampson, Basicor 97 Training
- Pieter Smit, Saudi Sioli Company
- Gerhard van Staden, Midvaal Fire Department

Associate grade

- Nigel Groenewald, Resolute Syama Gold Mine, Mali
- Rob Hiuo, Actom Energy
- Areeb Hussain, PMC Professional Consultants
- Dirk Kapp, ZPC Group
- Moses Khoza, Vhembe District Municipality
- Hendrik Mcleod, Nelson Mandela Bay Municipality
- Uncel Mhelembe, Rhino Consulting Engineers
- Alford Mutumha, Minerva Insurance, Zimbabwe
- Hendrik Pietersen, ZPC Group
- Ravien Ramcharan, Hollard Insurance
- Ludwig van Rooyen, ZPC Group

Member grade

- Neil Moir, Neil Moir and Associates

Continuous Membership Awards 2015 and 2016

Congratulations to the following members who collected their continuous membership certificates:

Five Year Award

- Jae Eichorn
- Belfa Fire (Pty) Ltd
- Chris Geylen
- Garryn Brooks
- Johan Joubert
- Johan Maass
- Jonathan Lewis
- Vairaag Panchoo
- Robertson Ventilation Industries

10 Year Award

- Anthony Bruno
- Neil Moir
- David Odd
- Tsunyane Tsoetsi
- Saritha Wolff
- Robbie Wouters

15 Year Award

- Dan Mokonyama

20 Year Award

- Malefetsane Ramalebo

25 Year Award

- Dino Padayachee

30 Year Award

- Andrew Greig

35 Year Award

- Hein Munnik

50 Year Award

- Peter Davey

Exam certificates

Exam certificates for the 2016 exams had already been distributed to successful candidates. Of the 232 candidates from the South African branch that entered, the following are the figures of successful candidates in each discipline:

- Level 4 Certificate, member, individual papers: 4
- Level 3 Diploma, graduate, individual papers: 27
- Level 3 Certificate, intermediate, individual papers: 78
- Level 2 Certificate, preliminary: 45

Full passes achieved in 2016

- Level 3 Certificate: 15
- Level 3 Diploma: 10

Top candidate awards, international exams, 2015

- Level 2 Certificate examination 2015
- Caroline van Dongen, Aecom, Centurion
- Level 3 Certificate examination 2015
- Orlando du Plessis, ER24, Cape Town
- Level 3 Diploma examination 2015
- Hugh Brown, City of Johannesburg Emergency Management Services

Hugh Brown was also the recipient of the prestigious Godiva Award for top international Level 3 Diploma student 2015. Another South African, Jan Rossouw, received the Godiva Award in 2014.

Top candidate awards, international exams, 2016

- Level 2 Certificate examination joint top South African candidate
- Duncan Boyes, Centa Group
- Level 3 Certificate examination 2016 top South African candidate
- Juandre Viviers, Overstrand Municipality, Western Cape

Congratulations on these achievements!





The importance of risk assessment at vehicle accident scenes

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



What is the goal of risk assessment at accident scenes?

- To remove hazards or reduce the level of its risk by adding precautions or control measures, as necessary. By doing so, you have created a safer and secure accident scene.

As first responders, it might seem obvious that other resources are in a unique position to help accident victims deal with the impact of their ordeal, to help restore a sense of safety and control to an otherwise fearful and overwhelming situation.

Our aim with this article is to reduce losses in life caused by accident hazards on scenes or major incidents. Danger at vehicle accident scenes is the result of our vulnerability to all the hazards on the scenes and sometimes the lack of rescue or medical capacity.

With an increasingly new vehicle technologically driven society, come new challenges for rescuers. While we, as rescuers, cannot do away with this new vehicle technology and accidents hazards, we can eliminate those hazards we cause, minimise those we exacerbate and reduce our vulnerability as rescuers and paramedics.

Alternatively fuelled vehicles are now common all over the world, with hybrid and electrical vehicles. This technology has made for stronger and safer vehicles, however, it creates huge challenges for emergency responders at accident scenes.

We can also use the risk equation that disaster managers use to describe their disaster risks:

$$\text{Risk} = \frac{\text{Vulnerability} \times \text{Hazards}}{\text{Capacity/control}}$$

This equation brings one to understand that in order to influence risks at

Accident scenes are often chaotic and difficult to secure with so many people and responders coming and going. No accident scene is alike but they share the same goal, everybody should get home safe and sound. Risk assessment becomes more and more a key to insuring safety at big accident scenes. Knowing the hazards and how to work around them will ensure the safety of everyone.

What is a risk assessment in a case of an accident scene?

Risk assessment is the process where you:

- Identify hazards on an accident scene
- Analyse or evaluate the risk associated with that hazard at the accident scene
- Determine appropriate ways to eliminate or control the hazard at the accident scene

In practical terms, a risk assessment at an accident scene is a thorough

look at your scene to identify those things, situations, processes, etc that may cause harm, particularly to people and infrastructure. After identification is made, you evaluate how likely and severe the risks are and then decide what measures should be in place to effectively prevent or control the harm from happening.

Why is risk assessment important at accident scenes?

Risk assessments are very important as they form an integral part of a good scene incident command safety management plan. They help to:

- Create awareness of hazards and risks at a scene
- Identify who may be at risk ie public, medical and rescue personal and other support services, etc
- Determine if existing control measures are adequate or if more should be done at the scenes
- Prevent injuries or illnesses when done at the design or planning stage of the accident scene
- Prioritise hazards and control measures

accidents scenes, responders need to address one or a combination of hazards and vulnerability. It is evident that rescuers and paramedics are very vulnerable on accidents scenes. According to Holmatro vehicle extrication techniques we can define risk and hazards as follows:

Hazards can be defined as:

Any source of potential damage, harm or adverse health effects to/on something or someone

Risk can be defined as:

The chance or probability that a person could be harmed or experience an adverse health effects if exposed to a hazard.

Control can be defined as:

An action that can be taken to reduce the potential of exposure to the hazards.

Hazards analysis

Hazard analysis consist of a number of steps to been taken on accident scenes. The following hazards need to be Identify:

- To identify hazards on the scene
- To identify high risk locations where accidents are
- To identify high risk times (peak hour traffic)
- Identify priority one high risk patients

Physical hazards

- Uneven ground
- Live electrified road equipment
- Unstable structures



Vehicle hazards

- Broken glass
- Spill leaks
- Unstable vehicles

Dynamic hazards

- Weather conditions
- Vehicle stability
- Vehicle structure (as a result of space creation)

Casualty hazards

Blood and bodily fluids

The document of the occupational health and safety amendment bill define risk as follows: Risk means the probability that personal injury, illness or the death of the employee or any other or damage to property will occur.

Risk assessments

Means the process of evaluating the risk to an employee's health and safety workplace hazards and is a systematic assessment of all aspects of work that considers:

- A complete hazard identification
- Identification of all who may be affected by the hazards
- How the person is affected
- The analysis and evaluation of the risk and
- Prioritisation of risks

Vulnerability assessment

Meaning being prone to or susceptible to damage or injury.

- Elements at risk and reasons why elements are at risk
- People at risk
- Location of people and patients at risk

Risk management means the identification and mitigation of risks by the application of appropriate control measurements

Workplace is any premises or place where a person performs work in the course of his employment.

According to Holmatro's vehicle extrication techniques, during our initial 360 degree survey, the incident commander should pay attention to the following and ensure that all identified hazards are communicated:



The right leader

By Wayne Bailey



Wayne Bailey

ask you to look back in your life, especially on the job and come up with an incident that frustrated you to no end. It bugged you for several days or weeks after it happen. Why? Was it because you couldn't do anything about it? I know of a situation where someone became the escape goat. In order for administration to look good

for an upcoming audit, someone had to be given a written warning, so the auditors could be satisfied corrected actions had been made. The frustration for this individual was a written warning was not necessary. The employee had never been written up or never had a derogatory review. A meeting with the employee telling them what they did wrong and an agreement that it wouldn't happen again, never happened. It was a first offence. The frustration felt by the employee was this was a written warning and it would go in their personnel record and jeopardise future pay raises or promotions. How do you continue to motivate the employee to go above and beyond in the dailies? It's tough to motive without a strong organisation.

Ever heard of the KISS method? Keep it simple stupid? Keeping it simple doesn't mean you're stupid. CW Ceran said, "Genius is the ability to reduce the complicated to the simple." Too often people try to talk over someone's head and mask the fact they really don't know what they are talking about. If someone asks me what I do for a living,

I tell them, 'we put the wet stuff on the red stuff and enjoy doing it'. How simple is that on explaining your job as a fire fighter? The next time a rookie ask you a complicated question, find a way to simplify the response and encourage them to research the question and explain it to you later. Albert Einstein said, "If you can't explain it to a six year old, you don't understand it yourself."

As a leader, you want to get alone with everyone. When it's time to move forward, you're going to follow other leaders going in the direction based on your moral, ethical and sometime religious views. When you're following such leaders, make sure they are solid inside and out. You may walk through a forest and all you see is strong trees. Once a wind storm moves through, you come back to see trees broken in half because they were rotten inside. If you had looked carefully at the tree before the storm, you may have noticed some dead branches (a leader keeping to themselves) or bark falling off the tree (a leader making bad decisions all of a sudden). Follow those that are strong and with the same values.



► This is just some of the hazards we will deal with but it gives us a clear picture of how we should be

dealing with hazards on accidents scenes. We must always establish the risk and then the hazard, which

must form part of our incident action plan.

We must understand that our accident scenes are not always the same and change constantly. That's why rescuers, ambulance staff and paramedics must constantly assess the risk and hazards at each vehicle accident scene.

This can be done when we arrive on the scene and during our size up of the accident scene and during our 360 degree inspection. It is important to constantly assess the scene. Risks and hazards can change during operations so it must be a continuous process until all patients are moved and transported. ▲

Rachael Fisher-Layne, vice president of media relations, JCPR, a public relations agency said look for:

1. Honesty. Always do the honest thing. It makes employees feel like they know where they stand with you at all times.
2. Focus. Know where you're going and have a strong stated mission to lead people on. If you're not sure, how can your people be sure? You have to have strong focus and stay the course.
3. Passion. Whatever it is, you must have passion for what you're doing. Live, breathe, eat and sleep your mission.
4. Respect. Not playing favourites with people and treating all people, no matter what station in life, what class or what rank in the organisational chart, the same.
5. Excellent persuasion abilities. People have to believe in you and your credibility. Image is everything and the belief people have in you, your product, your mission, your facts or your reputation are key to being a great leader. You have to persuade people of this; it doesn't just happen.

In emergency services, we do our best to establish clear lines of authority. It should be clear what the chief can spend, what the training officer puts on the training schedule, what the officer teaches at the fire station to the men and women that serve under them. If we had training officers requesting training on how to start interveinal fluids (IVs) in the field and your department was only a basic first aid responder, the officer definitely exceeded his or her authority. Having the right person or the job and knowing their authority is key.

As a leader, your people will make sure they do what you will come back later and inspect. "Trust but verify" is a translation of a Russian proverb, which became well known when used by President Ronald Reagan in the context of nuclear disarmament. People will not do what you expect. They will sometimes let you down. If the bays in the firehouse were not swept and cleaned in an orderly way, you, as a leader, would see it when you



arrived or departed the station; so you know this will be done because you will see it. Have you ever had someone test you to see if you're reading a report they submitted? They put something in the narrative checking to see if you saw it? As a leader, if you read a report, make sure you make a comment in writing or orally something about the report good or bad to let your officer know you appreciate their efforts.

If a department's moral stinks or is in high spirits, most of the time it's coming from the top down. Try preparing breakfast or serving dinner one evening for the troops. Meet one on one with new staff and get them to know them. Here's a story from 'The Chief's Happiness Officer Blog' about a company that could have been really bad for a leader with a low self-esteem:

Celebrate mistakes

In one company, the CEO was told by a trembling employee that the company website was down. This was a big deal; this company made most of its sales online and downtime cost them thousands of dollars an hour.

The CEO asked what had happened and was told that John in IT had bungled a system backup and caused the problem. "Well, then," says the CEO "Let's go see John!"

When the CEO walked into the IT department everyone went quiet.

They had a pretty good idea what was coming and were sure it wouldn't be pretty.

The CEO walks up to John's desk and asks "You John?"


"Yes" he says meekly.

"John," says the CEO, "I want to thank you for finding this weakness in our system. Thanks to your actions, we can now learn from this and fix the system, so something like this can't happen in the future. Good work!"

Then he left a visibly baffled John and an astounded IT department.

That particular mistake never happened again.

Any time you speak with your employees, always praise in public and criticise in private. Successful leaders and organisations recognise and reward effort when it happens, not when moral is the lowest. When you get a save doing CPR, a rescue from a fire or doing something that was over and beyond what was needed, celebrate. This could easily be done by mentioning it in a staff meeting, sending it by email or just a pat on the back and say job well done.

In closing, finding the right person for the right job takes time. By getting to know someone ahead of time and finding out what motivates them, will help you be ready to place them when the preparation and opportunity meet. 

The fireman's 'Ringing of the Bell' tradition



The tradition reflects respect and honour to those who gave their lives to their duty



The ringing of the bell announces a comrade has come home for that final time

The ceremonial ringing of the bell in memory of those who died in the line of duty (LODD) is an age old tradition of the fire services that dates back over 150 years. Also known as necrology and commemorated annually on International Fire Fighter's Day, the tradition reflects respect and honour to those who gave their lives to their duty.

The men and women of today's fire service are confronted with a more dangerous work environment than ever before. We are forced to continually change our strategies and tactics to accomplish our tasks. Our methods may change but our goals remain the same as they were in the past; to save lives and to protect property, sometimes at a terrible cost. This is what we do, this is our chosen profession, this is the tradition of the fire fighter.

The fire service of today is ever changing but is steeped in traditions 200 years old. One such tradition is the sound of a bell.

In the past, as fire fighters began their tour of duty, it was the bell that signalled the beginning of that day's shift. Throughout the day and night, each alarm was sounded by a bell, which summoned these brave souls to fight fires and to place their lives in jeopardy for the good of their fellow citizen. And when the fire was out and the alarm had come to an end, it was the bell that signalled to all the completion of that call.

When a fire fighter had died in the line of duty, paying the supreme sacrifice, it was the mournful toll of the bell that solemnly announced a comrade's passing.

Usually done after the reading of the Fireman's Prayer, the ringing of the bell is the final event of a line of duty death ceremony that announces a comrade has come home for that final time. After each set of ringing the bell three times, the fingers of a gloved hand gently grab the bell to silence it before

sounding the next ring of three. At the final toll of the third pull, the bell is left alone to ring out.

We utilise these traditions as symbols, which reflect honour and respect on those who have given so much and who have served so well. To symbolise the devotion that these brave souls had for their duty, a special signal of three rings, three times each, represents the end of our comrades' duties and that they will be returning to quarters. And so, to those who have selflessly given their lives for the good of their fellow man, their tasks completed, their duties well done, to our comrades, their last alarm, they are going home.

September 11

In memory of all who died during the attacks on 11 September 2001, the bell is rung five times in series of fives (5 x 5 x 5 x 5 x 5). Multiplied out this equals 3 125, a number very close to the number of people who died as result of the attacks. ⚠

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

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**

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

31 January 2017**14th International Wildland Fire Safety Summit**

This 14th International Wildland Fire Safety Summit is themed on decision making in high risk and high consequence environments

Venue: Barcelona, Spain

For more information visit:

www.paucostafoundation.org/ICoPFires/wildland-fire-safety-summit/

February

1 – 3 February 2017**International Congress on Prescribed Fires (ICOPFIRES)**

ICOPFIRES will be the first international congress about prescribed fires in Europe. We aim to connect the diverse stakeholders involved in forest management

Venue: Barcelona, Spain

For more information visit:

www.paucostafoundation.org/ICoPFires/

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/

11 – 17 March 2017**2017 International "Floodfighter" Emergency Management, Flood and Water Rescue Master Class**

A vital 'International Floodfighters Lifesaving' flood and water rescue conference/ workshops to showcase current best practice, review new techniques, equipment and emergency management guidance

Venue: Charlotte, North Carolina

For more information call: 0044 1202 731566

21 – 23 March 2017**Securex West Africa 2017**

Securex West Africa is a three day event being held at 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

6 – 8 April 2017**Fire and Safety India 2017**

It is an international exhibition and conference for key players of fire and safety segment, to be held concurrently with the fifth edition of Secutech India 2017

Venue: Bombay Exhibition Centre, NESCO, Goregaon, Mumbai, Maharashtra

For more information visit:

www.globalfireevents.mdmpublishing.com/event/fire-and-safety-india-2017/

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: 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/

22 – 24 May 2017**EMS2017 Copenhagen**

The EMS2017 congress is expected to attract about 1 500 participants from all over the world. As exhibitor you will have excellent opportunities to promote your latest products and services and interact with participants

Venue: Tivoli Hotel and Congress Centre, Copenhagen

Contact: Kirstine Vestergård Nielsen, senior executive consultant

Tel: +45 24 97 88 27

Email: Kirstine.vestergaard.nielsen@regionh.dk

24 – 25 May 2017**Hazmat 2017**

Hazmat 2017 is an essential opportunity for hazmat specialists to share experiences and knowledge with professionals working in the hazmat and chemical incident industry

Venue: Crowne Plaza, Stratford-upon-Avon

Contact: Sheena.Newell@ricardo.com

June

4 – 7 June 2017**NFPA Conference and Expo 2017**

The NFPA Conference and Expo brings to life the products and services needed to meet and maintain compliance with prevailing codes and standards in the design, construction and operation of buildings and facilities of every kind

Venue: Boston Convention and Exhibition Centre, Boston, USA

For more information visit:

www.nfpa.org/training-and-events/by-type/conferences/conference/expo

15 – 18 June 2017**International Hazardous Materials Response Teams Conference 2017**

The Hazmat Conference is a four-day event offering hands-on training across a range of essential topics

Venue: Hilton Baltimore, Baltimore, USA

For more information visit: www.iafc.org/hazmat

20 – 22 June 2017**Firex International 2017**

FIREX International is the only event that connects the global fire and security markets and gives fire and security professionals access to the very latest technology from suppliers across the world

Venue: London, England

For more information visit: www.firex.co.uk

July

26 – 29 July 2017**IAFC Annual Conference and Expo 2017**

The IAFC represents the world's leading experts in the first responder community

Venue: Charlotte Convention Centre, Charlotte, USA

For more information visit: www.iafc.org

If Only!

You could feel the heat from these flames, this heat that instantly scorches and blisters the paint on your fire helmet, searches for any part of your unprotected body to burn, that forces your heartbeat and pulse to reach dangerous levels, where even above the roar of the fire, you can hear them, beating like a drum inside your head!

This heat that forces you to the floor, instantly sapping your strength, stealing your energy, the only thing keeping you going, your training, adrenalin and will power. Devouring everything in its path, its one purpose to consume and destroy. It will attack the limited protection given by your fire gear, making it unbearable to touch, turns your sweat into steam that will scald your own body. Snuff out your life in an instant, given the conditions that added time allows!

IF ONLY!

You could experience that sickening smell of burned flesh that tells your senses instantly that you are dealing with a fatal fire. That sets your brain into overdrive, how many adults, kids, a family? The smell that you can literally taste, that sticks to your fire gear and in your nostrils for hours, in your memory forever, never ever to be forgotten!

IF ONLY!

You could be the one having to push the boundaries, who discovers the child that has hidden under the bed. That limp, lifeless body you will have to carry, all of the time trying so hard to breath your life back into, theirs stolen away! This child who has only just started out in life, another victim to be lost in lies called statistics that say this doesn't happen anymore. Another ghost for your private nightmares!

IF ONLY!

You could be the one fighting back the tears as the distraught parents ask are my children safe? Did you find them? Yes you found them but you must be strong, whilst trying to force the images of your own children from your mind. Your own children that you are now praying to God in your head, please keep them safe! You want to hold them, tell them how much you love them, but this will have to wait, as now you must give the respect and dignity deserved!

IF ONLY!

You could be the one that has missed yet another hot meal because of calls that has not had any proper sleep for another 48 hours. That had to listen to the screams of agony and for help from the driver and passengers, trapped in yet another MVA at 3am on yet another rain soaked early morning!

IF ONLY!

You could be the one, who day after day, night after night, has been sometimes chest deep, in freezing water and sewerage, manning pumps attempting the impossible, to beat and reverse nature, trying to help those that have lost everything, some not for the first time. Trying to help them retrieve their pets, treasured belongings, whatever they can salvage, listening to their worries, trying to give reassurance, as they wonder how they can rebuild their lives!

IF ONLY!

You could feel the aches and pains in every muscle and joint, bought on by years of doing this continuously throughout their careers. Be the one to help their memories forget what their eyes have seen!

IF ONLY!

You could experience the bond formed by being part of this dedicated group of professionals, this bond that lasts throughout their career and beyond, that keeps them united and that ensures that they cope with these daily horrors, that can never be put into words, only lived, experienced, depending on each other, so many times risking their own lives to save others!

IF ONLY!

You could understand they love their job, they don't wish to do anything else, they don't ask for praise, medals, politicians salaries or hero worship, they only ask for a fair playing field. Pension rights and working conditions that don't break contracts signed up to!
Something that the public who they protect and you choose to ignore, think is only fair!

IF ONLY!

You could do any of the above just once, then, maybe, just maybe you would start to understand what it's like to be a fire fighter!

Thank you for taking the time to read this!

By Kevin Wright, a retired London fire fighter, 32 years' service.

"I have put these words together for fire fighters all over the world!! To all those cutting the fire service, attacking the fire fighters pensions and working conditions I say, IF ONLY!!"



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