

# FIRE AND RESCUE INTERNATIONAL

Integrated fire, rescue, EMS and incident command technology

Volume 5 No 2



50<sup>th</sup> edition!

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Integrated fire, rescue, EMS and incident command technology

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# Comment

**Fire and Rescue International (FRI)** is proud to present its 50th edition. We trust that you enjoy reading Fire and Rescue International and that you find benefit, inspiration and value from the articles published. Enjoy the read!



Lee Raath-Brownie

**International Fire Fighters' Day**

International Fire Fighters' Day (IFFD) is observed on 4 May each year and we provide our readers with some of the events held in South Africa in commemoration of IFFD and those who lost their lives in service.

**Wildfires: Working on Fire deployed to assist Canada**

South Africa's Working on Fire (WoF) fire fighters were deployed to Canada to assist with the major wildfires. We provide an overview of the experience in Canada.

**Incident command: Why train in ICS?**

Incident Command System (ICS) instructor, Michelle Kleinhans, provides us with some food for thought as to why your team leaders and teams should be trained in ICS.

**Vehicle handover**

National Petroleum Refiners of South Africa's (NATREF's) fire chief, Rory Hodgkinson, recently took delivery of two new Advanced Rapid Response units. He explains the benefits of the RIVs and details the specifications.

**Self-defence strategies for first responders**

In the first part of a series of articles on self-defence for first responders written by Morné Mommsen of Midvaal Fire and Rescue and Warrior Combative, we look at the importance of regular training in some kind of self-defence system for emergency service members. Mommsen represents Warrior Combative who specialises in the Krav Maga System, National Fire Protection Association (NFPA) Self Defence Course designed for the purpose of defending yourself against the reality on the street.

**Fireground communications**

Our technical expert, Colin Deiner, shares practical know-how on fireground communications and discusses planning and preparing your communications methods, on-scene communications and panic situations. Deiner also highlights the importance of training and using technology to your benefit.

**ETS Emergency Training Solutions Industrial Fire Competition 2019**

We provide the results and an overview of the recently held industrial fire competition 2019 held by ETS Emergency Training Solutions. Enjoy the gallery!

A huge thank you to all our contributors, advertisers and readers for their continued support! Fire and Rescue International is your magazine. Read it, use it and share it!

**Lee Raath-Brownie**  
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## This month's FRI Images winner!

### Congratulations to

Stuart Jeacocks for his photograph 'Until death do us part - A night in the eyes of emergency workers' taken with a Huawei P10 Mate on the automatic settings and no flash.

**Well done!**

**Stuart Jeacocks wins this months prize money of R2000!**

#### Photo description:

Photograph captured during a motor vehicle collision; a head on between two vehicles south of Durban. One bursting in to flames. Miraculously, two non-fatal victims with only minor injuries. The setting, backdrop and ambience allowed for a very dramatic photograph been captured.

## 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 1meg) 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](mailto:lee@fireandrescue.co)

**>> ENTER NOW!**





# Stellenbosch hosts IFFD commemoration in Western Cape

**S**tellenbosch hosted the Western Cape International Fire Fighters' Day (IFFD) commemoration on Saturday, 4 May 2019. More than 50 vehicles from various fire services throughout the Western Cape Province partook in the motorcade that departed from Stellenbosch Fire Station and drove through Cloetesville to the Braak and included a drill squad formed and a fly by by two helicopters.

More than 2 000 people were in attendance with Magic 828 Music Radio keeping the crowd on their feet with upbeat music and announcements. One of the highlights was the Cape Winelands and Stellenbosch squad drill lead by the master class drillmaster, Heinrich Louw. City of Cape Town and Overstrand combined a rope rescue drill, while Cape Winelands and City of Cape Town hazardous materials decontamination also performed a drill, as did Volunteer Wildfire Services (VWS) Wildland Fire Suppression and City of Cape Town, who performed a foam drill. Stellenbosch Fire and Rescue Fire gave a life safety presentation and the Cape Town

Destroyers Team performed a vehicle extrication demonstration.

Chaplain Daniel Solomon opened the event with scripture reading and prayer and Heinrich Louw led the proceedings. Speeches included Stellenbosch's chief fire officer, Wayne Smith and municipal manager Geraldine Mettler, with Chief Smith thanking the political and administrative leadership of Stellenbosch Municipality for hosting the event as well as all chief fire officers for allowing their fire fighters and vehicles to partake in the event and the Western Cape Provincial Government and the Cape Winelands District Municipality for their support.

The team challenges were lively and were energetically cheered on by the supporters. The fire fighter team challenge consisted of teams of four fire fighters, who had to complete a set circuit with eight different stages.

Stage 1: Don PPE which included bunker gear and a SCBA set (members do not wear a mask and is not connected to the air supply.)

Stage 2: Carry a Stokes basket with

an 85kg manikin for 20m around a marker and back.

Stage 3: In teams of two, hit the Kaiser Force machine

Stage 4: Each member make up a 65m x 30m hose and deploy the hose

Stage 5: All four have to run through a tunnel

Stage 6: 20m tyre pull

Stage 7: Large tyre flip all four members

Stage 8: Charged 65mm hose drag

Garden Route District Municipality (GRDM) won the team challenge, while Overstrand Municipality's Fire Department came second and Overberg District Municipality came third. The GRDM Team included Edwin Lottering, Johnathan van Vuuren, Heinrich Leslie, Emile Conrad and Armien Bailey.

Overstrand Municipality's Fire Department team members Justin Brussel, Cecil Abrahamse, Shaun Mackey and Earl Galant as well as team leader Ebriam Isaacs, represented the Overstrand at the event, with the support of fire chief Lester Smith and Angelo Aplon and other colleagues from the fire department. ▲





# Gauteng Province Disaster Management commemorates IFFD in Tshwane



The City of Tshwane, in collaboration with the Gauteng Provincial Disaster Management Centre (PDMC) commemorated International Fire Fighters' Day (IFFD) at Centurion Lifestyle Centre in Tshwane on Saturday, 4 May 2019. The event was attended by fire fighters from the municipalities of the Cities of Ekurhuleni, Tshwane and Johannesburg as well as Midvaal Local Municipality. The head of the PDMC, Dr Elias Sithole, gave the keynote address at the IFFD commemoration. Mandla Masina of Gauteng Provincial Fire and Rescue Services gave a vote of thanks, while Charles Mabaso of City of Tshwane read out the names of the fire fighters lost in the line of duty in Gauteng.

The event honoured fire fighters who lost their lives in the line of duty while earnestly trying to save a life or protect those in danger. The IFFD is observed throughout the world where communities recognise and honour

the sacrifices that fire fighters make to ensure that they (communities) and the environment are as safe as possible. The day is also aimed at creating public awareness of the emergency services and its mandate. 🔥



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# IFFD commemorated in Mopani District



**I**n Friday, 3 May 2019, the Tzaneen and Modjadiskloof Fire Stations celebrated International Fire Fighters' Day (IFFD) at the Tzaneen Fire Station along with other first responders, including the Emergency Medical Services (EMS), Working on Fire (WoF), Traffic, South African Police Service (SAPS), ER24, TEMS 911 EMS and the Letaba Fire Protection Association. To kick the event off, a parade was held through town to showcase the capabilities of local emergency services. On arrival at the Tzaneen Fire Station, first responders and guests were welcomed by the senior manager of Community Services of the Mopani District Municipality, David Shitlhangu. Following the reading of the Fire Fighter's Prayer by assistant Chief Fire Officer Vincent van der Westhuizen,

Member of the Mayoral Committee (MMC) for Community Services, Cllr A Sono, provided the keynote address.

She explained the origin of International Fire Fighters' Day to the audience and provided words of encouragement for the emergency services. The keynote address was followed by squad drills by Working on Fire Teams, a fire awareness talk, a firehose drill, a rescue drill and the fire-fighters fitness competition.

Before the drills got underway Tzaneen Fire Station divisional officer, Beryl Monakisi, used the opportunity to raise awareness about fire with school children from a local school. Her ability to engage with this young audience saw a quick and enthusiastic response from the children as they learnt critical basic

issues related to fire and relevant emergency numbers. Much to their delight, each child was presented with a certificate from Mopani Fire and Rescue Services at the end of the awareness session. Following this, the Modjadiskloof Fire Station, supported by the Emergency Medical Services, ER24 and TEMS private ambulance service undertook a rescue simulation, while the Tzaneen Fire Station provided a firehose drill.

The fire fighter fitness competition involved a gruelling series of exercises which tested participants to the full. Letaba Fire Protection Association fire manager, Rouan Snyman, facilitated the competition, assisting in getting each participant started and tracking their respective times. Trophies and medals were awarded to the winners by Cllr Sono and Cllr Mathedemusa. ▲



## Winners

### Men

#### First place:

Junior fire fighter LE Kgapane

#### Second place:

Junior fire fighter M Rikhotso

#### Third place:

Junior fire fighter MJ Molapisane

#### Fourth place:

Fire fighter CK Ngoepe

### Women

#### First place:

Fire fighter MA Mashile

#### Second place:

Fire fighter SR Phooko

#### Third place:

Junior fire fighter NJ Mabuza

#### Fourth place:

Divisional officer MB Monakisi



# International Fire Fighters' Day

## commemoration held in Nelspruit

The Lowveld and Escarpment Fire Protection Association (LEFPA) opened the Lowveld 2019 winter fire season at the Nelspruit Methodist Church on Sunday, 5 May 2019 and they received blessings from the congregation as they celebrated International Fire Fighters' Day. A welcome and opening was done by LEFPA manager, André Scheepers. All role players in fire fighting, including urban, rural, volunteers, industrial, aviation, municipal officials, City of Mbombela Fire and Rescue, Kruger Mpumalanga International Airport (KMIA), Working on Fire, Off Road Rescue Unit (ORRU), Mpumalanga Provincial Disaster Management (PDMC), South African Police Services (SAPS), Hi Tech Ambulance Service, Kanyilanga Forestry, FPA members and officials and most important all the wildland and structural fire fighters were welcomed by Scheepers.

City of Mbombela Fire and Rescue chief fire officer, Petrus Mthiyane, gave the key note address and he quoted from Lt JJ Edmondson 1999, "The role of fire fighters in today's society". The fire engines then sounded their sirens for 30 seconds in remembrance of the fallen heroes. Reverent Allen Booth closed the parade with a Communion service and

scripture reading from John 21, "Jesus and the miraculous catch of fish".

LEFPA management thanked all for their dedication and attendance. ▲





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# uMhlathuze Local Municipality

## marks IFFD with fire fighting competition

**Firefighter Fitness Challenge**

**City of uMhlathuze**

**Fire and Rescue**  
035 797 3911  
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**When I am called to duty, God wherever flames may rage, give me strength to save a life, whatever be its age, Help me to embrace a little child before it's too late, or save an older person from the horror of that fate, Enable me to be alert to hear the weakest shout, and quickly and efficiently to put the fire out, I want to fulfil my calling to give the best in me, to guard my neighbour and protect his property, And if according to your will I have to lose my life, bless with your protecting hand my loving family from strife.**

Mhlathuze chief fire officer, Oscar Makgaka, wanted to start a new tradition. City of uMhlathuze Fire and Rescue Services marked this year's International Fire Fighters' Day with a Fire Fighting Fitness Challenge. Chief Makgaka said, "Let me begin by congratulating the fire fighters that took part in the recent Fire Fighting Fitness Challenge held at Esikhawini Fire Station, a City of

uMhlathuze substation, which was a resounding success. It is encouraging to see the fire fighters from different stakeholders coming together as one. The example that they have set should be a platform for others to use to better themselves by joining them in future fire fighting games."

"For this reason, future Fire Fighting Fitness Challenges will be scheduled on a more regular basis. As the

fire chief, I am encouraging all fire fighters within the local and surrounding municipalities and industries to participate earnestly as that will improve our relationship in handling any disaster around the area of our jurisdiction. It will also improve response times and efficiency as well as effectively being able to deal with any emergencies we may encounter. Well done to all!" ▲




*WOF Team photo*

# WoF fire fighters deployed to Canada wildfires

**A**lberta has been experiencing an extreme fire season this year. More than 880 000ha have burnt in these fires, compared to the annual average loss to wildland fires of 147 000ha. In early May, the Canadian Interagency Forest Fire Centre (CIFFC) realised that the extent of the fire burning in Canada this season threatened to outstrip their fire fighting capacity. By the beginning of June, their daily National Fire Situation Report indicated that a significant mobilisation of provincial and international resources was required to assist active provincial agencies. During these extreme fire conditions, the CIFFC coordinates skilled fire fighting teams, equipment and aerial resources to push back the ravaging spread of these fires. The CIFFC mobilised support from other Canadian provinces and called for support from a number of international partners.

40 fire fighters from the Department of Environment, Forestry and Fisheries' Working on Fire (WoF) programme were requested to assist the Canadian province of Alberta in combatting its wildland fires. WoF selected two 20-person type 1 fire fighting teams based on skills and experience, fitness and an exemplary track record of

integrity and discipline, hailing from across the nine provinces in South Africa. 30 percent of the selected fire fighters were female, a unique characteristic of the WoF fire fighting force. As part of their WoF learning culture, the team was a blend of highly experienced fire fighters with previous deployment experience and participants experiencing their first opportunity to serve on an overseas assignment.

The WoF Wolfpack Hotshots Team was led by:

- WoF MD, Trevor Abrahams, who served as the senior agency representative (SREP) in Canada
- WoF's national general operations manager, Martin Bolton, who served as the international agency representative at the CIFFC in Winnipeg
- WoF's acting general manager in KwaZulu-Natal, Bongani Nhlabathi, who served as the agency representative at the Chuckegg Creek fire
- Regional manager Bonagani Mashiane (from Mpumalanga) and ground operations manager, Antoinette Jini (from Eastern Cape), served as leaders of the WoF teams.

The WoF Hotshots team assembled at the WoF Academy in Nelspruit for a team briefing on the mission ahead, to complete all required administrative, medical and governance procedures and for training on all new Canadian equipment and systems in preparation for their deployment to Canada.

The WoF teams left for Canada in three groups:

- An advance party of WoF executives departed on 20 June – Martin bound for the CIFFC's offices in Winnipeg and Trevor bound for Winnipeg and Edmonton to confirm the arrival logistics for the teams.
- Group 1 departed on 23 June 2019 via Johannesburg-Frankfurt-Toronto-Calgary-Edmonton.
- Group 2 departed on 23 June 2019 via Johannesburg-London-Vancouver-Edmonton.
- Group 3 departed 23 June 2019 via Johannesburg-Amsterdam-Calgary-Edmonton.

Barbara Creecy, Minister of Environment, Forestry and Fisheries, conveyed to the team the sentiments of the South African people, "My very best wishes go with ▶



► you on this important deployment. It is an honour to be asked to assist the Canadians in combatting their wildfires and a tribute to the skills, discipline and fitness in the Working on Fire programme."

The full WoF Hotshots team assembled in Edmonton by the evening of 24 June 2019, ready for action.

#### On the fireline

The WoF fire fighters joined teams from Alberta, Saskatchewan, British Columbia, New Brunswick, Ontario, Manitoba, the Yukon, North West Territories, Mexico and USA, who were all deployed to combat the huge Chuckegg Creek fire that ignited on 12 May 2019 and had already burnt over 350 134ha (26 July 2019), demolishing seven homes.

Evacuation measures were being applied in the town of High Level and surrounding hamlets. After a rest day in Edmonton, the team collected their Canadian-issued tents and equipment, concluded a briefing by Alberta Wildfire personnel and set off on the nine hour-long bus ride from Edmonton to the main camp at the Chuckegg Creek fire, approximately four kilometres south of the small town of High Level. On 27 June 2019, the WoF fire fighters eagerly started their first tour of duty on the western flank of this huge fire. The day started, like every other day would, with a WoF parade, singing of the National Anthem, prayer and announcements before bussing off to the various staging areas for joint team briefings. It took almost an hour to get from the base camp to the staging area.

Teams were then dispatched in Bell 212 and Bell 205 helicopters (similar to the WoF Hueys) to a landing zone close to the fire line or transported in all terrain Haglund vehicles to the fire site. The team was to spend the first 14 days on the fire boundary line, extinguishing the hotspots, burning ash pits and smouldering peat fires.

The exposure to new techniques, approaches, equipment and the novelty of fighting underground fires have greatly enhanced the skills set of the South African WoF Hotshots team. The divisional supervisor formally assessed the work and professionalism of the WoF fire fighters team to be of a high standard.

At the high point of this huge fire, over 1 180 fire fighters were on hand supporting Canada in this fight. No lives were lost.

#### The Evolution of the WoF SA-Canada Partnership

In 2011, the Kishugu Group, the holding company to which Working on Fire (Pty) Ltd belongs, hosted their fifth International Wildland Fire Conference in Sun City, which was widely attended by international industry professionals.

WoF and Kishugu demonstrated their fire fighting capabilities in the Pilanesberg National Park, providing insight to the various offerings of the brand. Kim Connors, the executive director of the Canadian Interagency Forest Firefighting Centre (CIFFC), extended an invitation to Working on Fire to assist Canada in suppressing



their wildland fires in cases where disaster fires outstrip their domestic and neighbouring support capacity. Canada has historically drawn resources from Mexico, the USA and sometimes Southern Europe and Australasia.

In 2015, the Canadian Assistant Deputy Minister of Forestry, Glen Mason and Trevor Abrahams, the then Secretary-General of the XIV World Forestry Congress, cemented the partnership between the CIFFC and WoF Pty Ltd, resulting in the first and second deployments of WoF fire fighters to Canada in 2015 and 2016.

The South African government, led by the late Minister of Water and Environmental Affairs, Edna Molewa, pursued a bilateral agreement to establish the basis for providing mutual assistance and implementing actions in other areas of cooperation in wildland fire management between Canada and South Africa. On 24 January 2019, a Memorandum of Understanding was signed between the Canadian and South African governments to provide for such deployments.

#### **Sharing the WoF SA flavour with our hosts**

The team was well looked after by their Canadian hosts, always receiving a warm meal in the evenings when they returned to the base camp. The WoF fire fighters rested on their days off at the Alberta Wildfire's Hinton Training Centre, saw a few Canadian bighorn sheep, mountain goats and elk and also had the opportunity to visit the Miette Hot Springs in the world-famous Jasper National Park and the town of Jasper.

Even though the WoF team was far away from home, on 18 July 2019, in celebration of the memory of Nelson Mandela, the WoF team spent the day with a group of local retired farmers, cleaning and restoring their barn and stables for their large herd of horses. When the hard day's work was done, the WoF fire fighters gave a poignant rendition of the late Johnny Clegg's Asimbonanga, a host of other songs and gumboot dancing. This left an indelible impression on the elderly in this farming community.

The WoF fire fighters' singing quickly became widely acclaimed, with the team regularly serenading fire fighters



who were celebrating their birthdays on the fire line. This eventually inspired an anthem singing competition, with our WoF fire fighters' sharing our unique SA flavour. This just made our everyday WoF heroes feel famous, being inundated with requests for pictures and exchanges of WoF T-shirts and memorabilia.

Throughout this deployment, the WoF team remained disciplined and in high spirits, doing their duty as shining ambassadors for Working on Fire and South Africa.

#### **Always ready to answer the call, to make a difference**

As the third deployment to Canada drew to a close, fire fighters reflected fondly on their international experience and the exchange of

knowledge, skills and camaraderie, while flying the SA flag high.

There was growing excitement though about the return home. On their return, the team stopped in Edmonton for the night before returning in three groups via London-Amsterdam-Frankfurt-Johannesburg, with all back at home safely on 30 July 2019. On arrival, the team was met by the Minister of Environment, Forestry and Fisheries, the Canadian High Commissioner, Department of Environment, Forestry and Fisheries officials and WoF management.

Even after their return to South Africa, the Chuckegg Creek fire was listed as "being held". The WoF team wishes their Canadian counterparts a continued safe and courageous fight on the fire line. ▲



# Why train in ICS?

By Michelle Kleinhans, managing director, Dynamic Incident Management



**T**hink of what is mostly shared as the reason why incidents 'got away' from responders. Yes, 90 percent of the time it is said or written that "We just did not have enough resources".

Well with that said and just before you unleash the comments and opinions, just think about it for a minute, "Not enough resources"? What does that really mean to you?

Ask yourself, maybe as a tactical responder or even as an incident commander, during an incident, do all resources know:

- What to do and who to report to?
- Do you know who they are or did they check in?
- Are they all using one incident management system?
- Do they all know who is currently in command?
- Are they aware of the current incident management structure in place?

Emergency response personnel, whether operational or functional as well as emergency operation centres (EOCs) should be trained in the incident command system (ICS) on a regular basis, so that everyone is familiar with their role and responsibilities as defined within the plan of the organisation, local

municipality, district municipality, province or country.

Supervisory roles should receive a higher level of ICS training, as leadership bears a higher responsibility and accountability to lead a team or responders under crisis conditions.

A well-developed incident command system (ICS) training programme that both guides and promotes all levels of ICS training is vital to the successful nationwide implementation of a National Incident Management System (NIMS). However, ICS training requires a continuous series of planning, organising, equipping, exercising, evaluating, taking and implementing corrective action.

Simulations (known and unknown) and exercises should also be conducted to test emergency response, continuity and communications plans and to evaluate the ability of personnel to carry out their assigned roles and responsibilities during incidents.

There is clearly a need to effectively communicate, coordinate, control and manage resources during incidents and someone must be in charge, objectives and priorities must be established that will provide direction and control to avoid conflict and to establish order out of chaos.

So let's get back to the "not enough resources."

Do you still feel that you do not have enough resources or do you start to see that it is not always quantity but it is the quality and management of the deployed resources that will make the difference during all levels of incidents.

## To summarise

- ICS theoretical training alone is not enough!
- Trained incident management teams (theory) is not enough!

## What can we do?

We can make ICS training more meaningful, focused on practical implementation; in other words, structure it around practical learning and exercises.

There is a need for refresher training and no not through your own personnel but with a subject matter expert that can see the 'missing' elements, refresh and strengthen the core skills in the group, without being part of the team but rather the original facilitator with a fresh pair of eyes.

One thing nobody can argue is that knowledge and skills deteriorate over time and don't say it is not so; what is not used is lost!

So why not do refresher training through the experts that trained you in the first place, instead of continuing training what "you" think is correct in your mind and your own rules, instead of using a generic trained system in the country.

Without proper, well-trained personnel and correct implemented incident management systems we will remain in chaos during incidents.

Now that it is said, by training in ICS regularly, hopefully the phrase of "not enough resources" will change to "the incident was managed effectively and efficiently with well-trained and equipped resources".

# BEYOND FIRST RESPONSE

Dynamic Incident Management is a LG SETA accredited Training Service Provider and specialise in Integrated Incident/Event Management.

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# The birth of an industrial quick attack with serious attitude

NATREF's chief fire officer, Rory Hodgkinson, of with the two new Advanced Rapid Response units



From this....



To this....

Chief fire officer Rory Hodgkinson of the National Petroleum Refiners of South Africa (NATREF) understands the necessity to mitigate the threat of fire in a refinery all too well. He has spent most of his career as a professional industrial fire fighter keeping abreast with the latest fire fighting techniques and equipment and systems that will positively impact on his ability to rapidly and effectively attend to fire incidents that occur at a refinery.

The latest in his toolbox is the delivery of two new Advanced Rapid Response units. These two Rapid Response units have a very specific task to perform in the refinery environment and have been meticulously designed to ensure that, as a first response to an incident, the units can perform a critical task in the knockdown and containment phase of an initial conflagration.

The Rapid Response units are designed on the Ford Ranger 3.2-litre TDCi Supercab 4x4. This particular chassis cab was selected due to the conversion kits that are available in the aftermarket in order to bring the required aesthetics to the unit as well as an attractive warranty, maintenance and service plan.

The high flow requirement has been met with the inclusion of the two TFT Crossfire monitors fitted with a TFT Master Foam self-inducing nozzle. The Master Foam nozzle is supplied with one percent and three percent induction orifices and is quick and easy to change out in the field. The monitors are fitted with valve under monitor (VUM) that allows for a 65mm discharge to be plumbed from the monitor supply line. The plumbing is manufactured from polished stainless steel.

The polished stainless steel frame is designed to allow for the complete removal of the rear unit from the load body.

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# Do we need self-defence and which martial arts for self-defence?

By Morné Mommsen, Midvaal Fire and Rescue and Warrior Combative



**Emergency service members need to get regular training in some kind of self-defence system**

This article does not come easy and hopefully I don't offend anyone. This is not the first time I am talking about self-defence for emergency members. This conversation already comes a long way and I even suggested 'Self-defence for emergency service' as the theme for the past Southern African Emergency Services Institute (SAESI) conference in 2017. A scary fact is that most senior management and provincial government members take note of this problem and on a regular basis it was indicated to them to start with some kind of training programmes to train emergency member to take care of them self in different criminal situations.



**Two TFT Crossfire monitors has been fitted with a TFT Master Foam self-inducing nozzle**

The 300-litre foam tank is manufactured from heavy duty polypropylene and is treated with a non-slip paint to accommodate the heavy wear and tear to which it is exposed to. The tank is fitted with an electronic contents level gauge.

Two all-aluminium hose trays are provided, one on either side. The left side hose tray accommodates three 100mmx30m supply line and the right hose tray six 65mmx30m attack lines.

Additional items that formed part of the vehicle specification are:

- 4 500kg electric front mount winch
- All stainless steel nudge bar
- WiFi camera to capture the incident
- Rear LED work light
- Emeduvac emergency lighting and siren system with LED flashes
- Step lights all round
- Reflective signage
- MSA mini self-contained breathing apparatus (SCBA)
- Thunderstorm C801 1x3 Premium foam

The fire apparatus division of Advanced FST in Alberton was responsible for the manufacturing and conversion process. Both units will be deployed at NATREF in Sasolburg. 



**The fire apparatus division of Advanced FST in Alberton was responsible for the manufacturing and conversion process  
INDUSTRIAL**

We must stop blaming each other and the system and start to act. On a regular basis we read some article with regards to "Emergency services being the target of criminal activities or emergency members being assaulted by criminals"; What a scary thought and even as this continue you will get some members of the emergency services who will state I can protect myself, but reality is that "everyone has a plan up to the point when you are hit in the face".

Some organisations now state that emergency service members need to carry firearms. Nice, I am a firearm expert and instructor but please explain to me how you will be able to protect your firearm if you busy with a patient or standing with a spreader in your hand. Sorry you can't protect your firearm and how many of you that do have a firearm, can really use it in a combat situation, I mean physically be able to use it. Many will become an expert with regards to a YouTube video or as experts will call them, YouTube Warriors. As someone who has been in the martial arts long enough to understand this and who has 28 plus emergency service years, I feel I should share this.

Emergency service members need to get regular training in some kind of self-defence system. I represent Warrior Combative who specialises in Krav Maga System, National Fire Protection Association (NFPA) Self Defence Course designed for the purpose of defending yourself against the reality on the street. It takes hard work and dedication to be able to defend yourself and I can promise you nothing comes easy. But in today's world of mixed martial arts, civilian self-defence courses, military combatives and an overall 'new' approach to self-defence by people who 'think outside the box', I can tell you, there is much confusion by people new to the martial arts world as to what exactly is the best approach for them. Many seek different things in martial arts, however, one thing they seem to have in common is self-defence.

Which style is best? Asks the typical inquirer, hoping to get an answer similar to, "Style A because it..." either has ..... (insert advantage)

or because style B lacks ..... (insert disadvantage.) In reality, such an answer is a mere misconception. All martial arts have their benefits. And all martial arts (not combat sports) share one goal in regards to self-defence and that is to neutralise or otherwise negate or incapacitate a violent threat, before it turns into a fight.

"But which martial art is better." You may reply. The answer? None! What? That's right. A martial art is nothing more than a set of skills one acquires and learns.

Which recipe is better? The recipe you can cook better.

Which tool is better? The tool you know how to use better.

Which hat song is better? The song you can play better.

Which subject in school is better? The subject you were taught better.

Which martial art is better? The martial art you were taught better. The martial art you can use better because you were taught better. The martial art you understand better. A martial artist is only as good as their instructor and the person using it. I stated before that martial arts are sets of skills you learn.

This is correct. One may type into the YouTube search engine, "Style A vs Style B" and this I find as pure silliness. Martial arts don't fight. Only martial artists do. The person who has a better understanding of the sets of skills they are using wins, not the set of skills themselves.

If you take many high-level martial artists, they will have a similar response to the same scenario.

That is because they are all using arts and concepts that were created by human beings and for human beings; whether that was centuries ago or this morning. So hopefully you can see now that martial arts are not on a pecking order of the most effective to least effective. They are simply relative to how we use them.

As mentioned, I represent Warrior Combative, who focusses on Krav Maga styles such as AIKMA (Israeli) and KMCS (German) Systems and also have written permission from the

founder to implement and teach an NFPA approved self-defence course designed for emergency responders. As an individual, I also participate full time in Shidokan Kick Boxing and I can guarantee anyone that this is not easy. But to be able to defend yourself, you need to step up. It does not help you to arm yourself if you are not properly trained. I am not against firearms as I am an advance tactical firearm instructor and love weapons but this is a last resort option for any member of a service. I merely state that you need to start with the basics and work your way up to success. Just a question, what if your opponent gets hold of your firearm or overpowers you? This will/ or can happen because of lack of knowledge and skills. 10 shots in a piece of paper don't make you an expert and there is a huge difference between static shoot and real life combat shooting.

You need to concentrate on awareness programmes, communication skills, basic stances, target areas, how to plan escape routes, how to control the fight and flight effects and if all fails, one-on-one fighting skills, multiple attacker fighting skills, knife fighting skills, firearm skills and so much more and remember, nothing in life is for free or comes easy.

On so many occasions training programmes and skills development with regards to self-defence for emergency members was sent and introduced to various departments and entities. Everyone always says "Wow" or "What a good idea" or "We must make this a priority". For how long do you want to make it a priority and don't act or must we wait until the first one is killed or raped or missing.

If interested in any form of assistance please contact us via email:  
Gauteng: dnaemergency@gmail.com  
Meyerton: davidkies.dk74@gmail.com  
Cape Town: p Vogts1@gmail.com

Best of luck with your training!

This is the first of a series of articles discussing self-defence for first responders written by Morné Mommsen. Please heed this advice and act on it. 🔥

# Cost effective, efficient cloud-based incident information management and dispatch solution

**F**ireWeb is a mature web-based information, incident and communications tool that has been tailor made for fire and rescue services and has been successfully utilised in national, provincial, district and local government throughout South Africa.

The platform delivers the vital features necessary for the effective communication, management, dispatching and reporting on fire and rescue operations. These range from assignment rosters to the recording and mapping of every incident logged, including all supporting documentation and evidence. Role-based workflow management ensures that tasks are attended to and signed off according to the policies of the organisation.

Our philosophy is to provide simple solutions for complex problems and our solution has been designed to be an intuitive 'one click' solution resulting in minimal training requirements. The platform is accessible wherever there is an internet connection allowing for usage both in the operations centre as well as in the field.

Allowance has been made for the population and management of institutional arrangements at every level of government and encourages stakeholders across these boundaries to engage with one another and share information and knowledge within their relevant forums.

Throughout the platform, you are able to create places that are geographical in nature and groups that are logical groupings of people and places ie departmental planning groups, risk reduction project teams, joint response and relief project teams and advisory forums at each level of government, which you are able to communicate with via one of the many integrated inbound and outbound communication methods such as digital radio, voice over internet protocol (VOIP), SMS text message or email.

Call takers are able capture incident reports for a collection of types, categories and sub-categories. The incident capture process guides the call taker through the process of obtaining the essential information required in order to provide an effective response. Through this process, the call taker is provided with information on specific standard operating procedures related to the incident that is being responded to. These standard operating procedures can be defined within the application on an incident type by type basis and are dynamic in nature, allowing for the call taker to perform a number of the required procedures from within the application.

Once the initial call take has been captured, the system will automatically trigger a notification to key personnel as set up in the system based on the incident type and location and will allow the call taker to continue populating the information associated to the specific incident. Each incident allows for the population of role based assignments, such as who the incident commander is as well as for the allocation of a greater situational report to group a collection of incidents occurring within a region together.

Based on the roster assignments, you are able to dispatch units and personnel which are on shift and available directly from within the incident. This allows you to track where vehicles and personnel are at any given time and to track time on the scene as well as kilometres

driven or hours flown. This is integrated into the resource and personnel history for audit purposes and provides a downloadable log book for vehicles and logs for pilots.

FireWeb has a fully integrated email and SMS text message communication system allowing for the dissemination of real-time updates to key role players directly from within the application as well as integrates with all standard protocol VOIP telephony systems allowing for simple click to dial functionality both within the operations centre as well as in the field via either a direct call or a conference call facility, with all calls recorded and associated automatically to the incident record.

Users of the FireWeb platform are able to send text based messages to individuals or all contacts within a group or place. The system maintains a full message history for emails, SMS text messages and voice calls that can be searched, not only on message content but on recipient and date range. This functionality allows users to communicate directly with selected recipients from any page within the application, from the occurrence book or from within an incident from the action updates based on the pre-defined notification groups.

Integrated into the this is an incident search tool that allows you to specify search criteria from a collection of incident fields ranging from category, date, actions, addresses, references to units and personnel in attendance as well as incidents within a drawn polygon on the map.

FireWeb is feature rich and battle tested and is a solution which is operating under the model of software as a service, meaning that there is no capital spend required to implement and all updates, new features and functionality as well as security, user support and backups are included as part of the standard application license fee.





# FEATURE RICH BATTLE TESTED FOR EFFECTIVE INTEGRATED FIRE INFORMATION MANAGEMENT

FireWeb is a mature web-based information, incident and communications tool that delivers the vital features necessary for the effective communication, management, dispatching and reporting on fire and rescue operations. FireWeb is successfully utilised in national, provincial, district and local government throughout South Africa. Visit [www.firewebapp.com](http://www.firewebapp.com) or call 27 (21) 422 2771.

# Looking ahead at Interschutz 2020

A year out from the start of Interschutz 2020 things couldn't be looking better, with all the key companies and first-responder organisations confirmed and gearing up for the show. Held in Hanover, Germany, from 15 to 20 June 2020, the world's leading trade fair for the fire and rescue services, civil protection, safety and security is expecting more than 150 000 visitors from all around the world. Alongside Interschutz, Hanover will be hosting the German Firefighting Convention.

Interschutz isn't like other shows. The international mega-event doesn't open its gates for another year but the pre-show preparations are already on the home straight, with exhibition space bookings currently running at a massive 92 percent of 2015 levels. The show will feature numerous conferences, forums and contests and the participating companies and first-responder organisations are making increasingly detailed plans about what they will be showing and offering visitors.

"There's a palpable air of excitement around Interschutz and it's building by the minute," said Martin Folkerts, Global Director Interschutz at Deutsche Messe. "It is a real thrill to be organising an event that is so important to an entire industry and which means so much, both at a business and an emotional level. Everyone's really putting their heart and soul into Interschutz, which is all the more reason for participants to start planning early. People really should be making their hotel and bed and breakfast bookings now," Folkerts said. "Other options may involve leveraging contacts with fire departments and other first-responder organisations in the Hanover region or using our mobile home park." Located in Laatzen, right next door to the exhibition venue, the park has 400 berths for trailers and motor homes that are available to be booked right now. Admission tickets

for Interschutz will be available from November on, just in time for the Christmas shopping season.

The main display categories at Interschutz 2020 are fire fighting, fire prevention, rescue services, civil protection, communication and control centre solutions and protective equipment. For the very first time in the show's history, there will be an overarching theme that will underlie and bring together all the various exhibitions and the supporting programme. It's 'Teams, tactics, technology – connected for protection and rescue' and it is a call to action to discuss and embrace the opportunities and challenges of digital transformation and the connective power of dialogue and exchange among the participating actors from many different organisations.

There have been a number of significant changes since the last show in 2015. Apart from a more transparent site layout, these include a better mix of industrial companies and first-responder organisations or, in Interschutz parlance, commercial and non-commercial exhibitors. On this score, the organisers and Interschutz partner, the German Fire Protection Association (GFPA), are well advanced in their negotiations with key sector associations and first-responder organisations. As a result, more than 70 non-commercial exhibitors have already been confirmed and assigned exhibition spaces in the halls, spaces in sign posted theme areas that accurately reflect their services and sectors. This means visitors will be able to head to the theme areas of interest to them and find all the relevant providers conveniently grouped at the one location.

As well as the exhibition stands, Interschutz 2020 will feature a richly varied programme of events. The big highlights here include the 29th German Firefighting Convention, which will be staged in tandem with Interschutz in downtown Hanover and at the Hanover Exhibition Centre. The German Fire Services Association

(DFV), also an Interschutz partner, will be running a whole range of events on the side lines of the convention. The convention will be opened at a reception hosted by Federal President Frank-Walter Steinmeier. German Chancellor Angela Merkel is also expected to put in an appearance at the event. "Sicherheit.Leben" or "Safety.Life" is the motto of an international conference that will cover key future challenges, such as climate change facing the fire services.

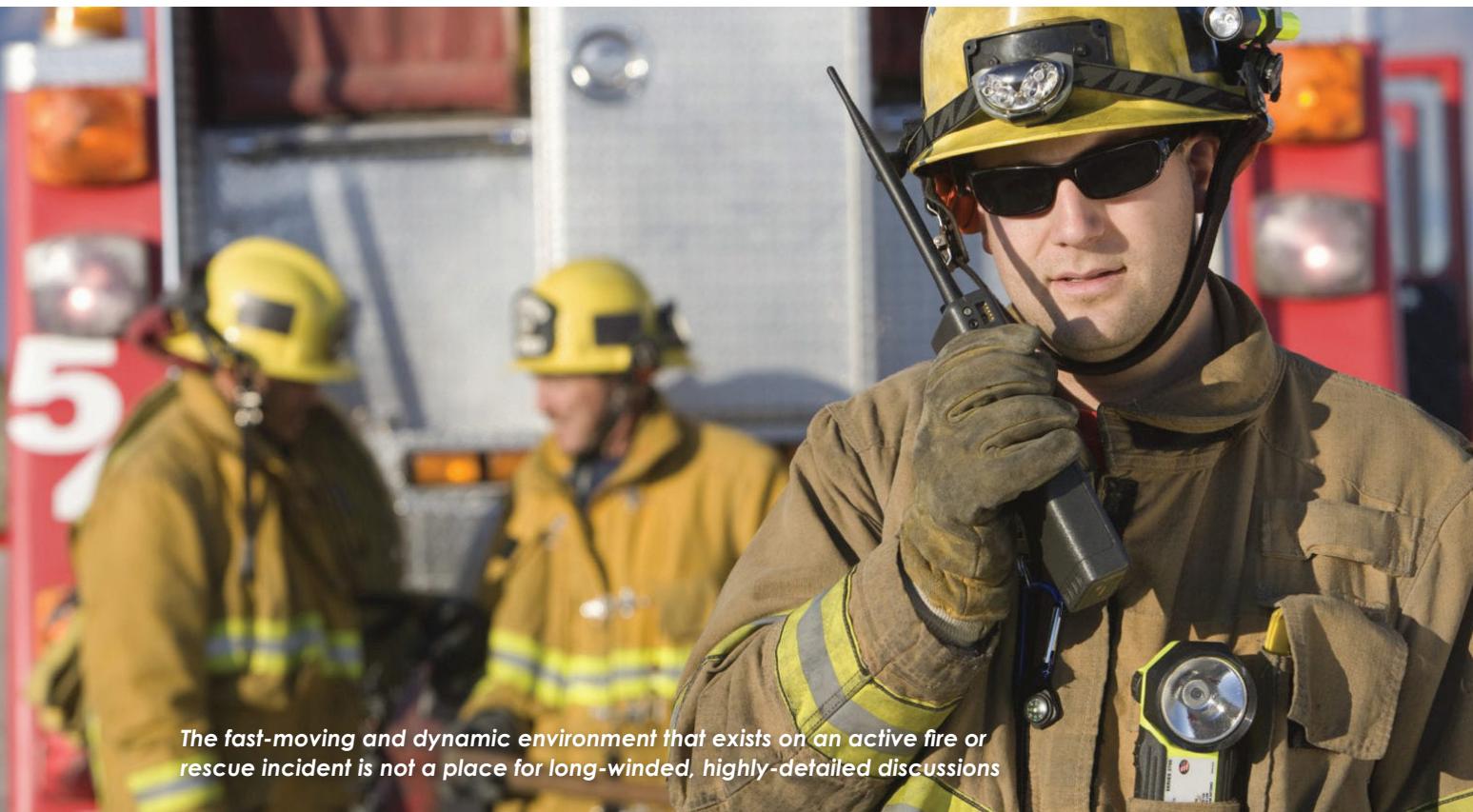
There will also be a concert for fire service personnel at the exhibition centre. Members of the public will be able see first-hand the enormous diversity of the fire services at a multi-day street showcase in downtown Hanover. In keeping with the keynote theme for next year's Interschutz, the group pavilion organised by the German Fire Services Association and its various partners at Interschutz, will put the spotlight on collaboration and integration across national borders. The 29th German Firefighting Convention is being organised in collaboration with the State of Lower Saxony, the Lower Saxony Firefighters Association, the City of Hanover and the Hanover Fire Department.

There will also be excitement and adrenalin aplenty, thanks to the action-packed programme on the outdoor demonstration site, the smoke jumping demonstration, the height rescue contest and events like the Holmatro Extrication Challenge. Rounding off the Interschutz offering will be numerous events featuring high-calibre speakers, such as the Hanover Emergency Care Symposium run by St John Ambulance, the Civil Protection Symposium and the International Summit for Rescue and Emergency Services.

Three days of next year's show will be devoted to particular countries; on Tuesday the spotlight will be on France, on Wednesday Italy will be in the limelight and on Thursday the USA will take centre stage. ▲

# Fireground communications

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



The word 'communication' is a seemingly simple term describing the interaction between two or more people; nowadays it could also mean that which happens between a human and a machine, computer for example. For any communication process to take place there must be a sender and a receiver. The sender could be communicating verbally, electronically, graphically or visually. The distance over which this communication can take place can be as close as directly (mouth to ear) or as far as earth to outer space. The main objective of communication by the sender is to provide information to the receiver or to give that person certain instructions. There are other reasons such as conflict, entertainment etc but let us not digress (or miscommunicate).

OK, so that is a fairly simple description of what communication is supposed to be. Why is it then that so many things go wrong and end disastrously

due to the lack of communication or through poor communication?

There are many sources of communications that can be used within emergency services and these sources are becoming more sophisticated with the rapid advances in electronic technology. We can have the best, most modern communications hardware (and software) available but if the message is not provided in a clear manner and understood correctly, we might as well send a messenger with a knot on a stick or fly a postal dove from the sender to the receiver.

## Plan and prepare your communications methods

It is no use to the attack teams at a structural fire if the incident commander instructs an 'aggressive, balanced interior attack' and they don't know what all the parts are that make up the whole of such a strategy. Similarly, a rescue squad also needs to know what all the tasks

will have to be performed when the incident commander (IC) calls for a 'rapid' or 'controlled' victim release.

The fast-moving and dynamic environment that exists on an active fire or rescue incident is not a place for long-winded, highly-detailed discussions. It's also not a 'paint-by-numbers' activity where responders can spend time reading volumes of information before going over to action. The main objective with communications should be that it is done in a clear, concise and complete manner. How do we then do this in a quick enough way to ensure that everyone is on the same page and that the desired result will be achieved?

It again comes down to training. All staff must not only be trained in fireground strategies and tactics and the various departmental standard operating procedures but must also learn how to communicate them. When an IC arrives on the scene of a structural fire and calls for the first arriving engine ►



Five fire fighters from the Hackensack Fire Department in New Jersey, United States, died in a fire at the Hackensack Ford Dealership. The investigation report pointed to a "communications breakdown" as a major point of concern.

► to commence an aggressive interior attack, the ladder truck to support the interior attack and for the second arriving engine to establish a sustained water supply he/she is, through those few words, instructing crews to perform a huge amount of tasks that should be well understood and carried out without hesitation. It is therefore important that everyone understands what sits within each strategy and what their role is. It should only be necessary for the IC to provide the plan in a concise manner that he/she is satisfied that it is clear enough to all.

As we know, the message of the first arriving unit sets the scene for all actions to follow and it is therefore necessary for this to be clear, concise and complete. For a message to be concise, he/she could make use of a series of pre-arranged terms, symbols and gestures that have been set up in the planning phase and is understandable by all. This condenses a whole range of instructions into a simple format. This saves time and also gives unquestionable direction to the person (or crew) being deployed. The need for clarity is also of vital importance and this is the reason that I have added the term 'complete'. When you are transmitting an instruction, make sure that you provide all the information that is required. Focus only on the transmission even though there are a hundred other things demanding your attention at that time. Also make sure that the person receiving the instruction is clear on his/her side. It is advisable that the message is repeated

by the receiver to ensure this. It does not have to be repeated verbatim but rather have the key points repeated back to you. Sometimes a mere 'message received' or 'copy that' just won't do.

### Tools of the trade

Advances in fireground technology have fortunately not bypassed the communication space. Noise-reduction systems that detect background noises or audio feedback and then have the ability to remove them to create clearer communication or radios with multiple microphones, which allows the operator to talk from a fair distance or into either side of a radio without any reduction in audio quality, makes the job of sending and receiving messages during operations a lot simpler.

Most fire and rescue services, however, have to function in a financially constrained environment where trying to keep up with technological advances can be a huge challenge. It is therefore advisable to consider the purpose for which the radios will be used and the kind of environments that they will be most commonly used in. This will determine the specification you will require and the accessories that will be needed. A water rescue team will require a rugged, water-proof system while a hazmat team could require throat microphones and systems that can be accessed while wearing bulky Level A chemical protection.

A number of breathing apparatus manufacturers now also supply masks that interface with the portable radio either via a cable or wireless technology. This technology has the advantage of clear communication and eliminates the risk of equipment snagging associated with the wires and cable exposed on the exterior. Unfortunately, these systems don't come cheap and there will also be the added investment of training of staff to use the equipment properly.

### On-scene communications

Early on in this article I have stressed the importance of proper preparation of communication processes. The best starting point is to establish where any potential problems might be. Listen to units communicating on incidents, also speak to them. You will probably find that most of these problems can be related to too much talking, unreadable transmissions and too much radio interference from dispatch. This information will be valuable in determining an effective communications system for your department. Once the structure of your communications' process has been designed and completed, it must be drilled in to every potential user. How often do we carry out drills sharpening our skills with ground ladders, attack lines, breathing apparatus etc? Here's a thought: Why don't we add radio communications into these drills. It is at this point where you will be able to identify the problem areas. Once this goes well, expand the communications aspect into your larger combined drills. It then becomes second nature during the incidents.

Your first action after arriving on scene will be to announce your unit's arrival and do an initial size-up of the incident. It is at this point where the first arriving officers could get caught up in all they are seeing and where they could provide more information than required at this point. It is here where the 'clear and concise' method of communication is required. Your first report should only be enough to let everyone know what you could be dealing with. You will give a more complete report after having done a 360-walkaround and are able to identify more issues.

Once the walkabout is complete a more detailed situation report should follow. This should include the following:

- Confirmation of the 360-walkabout (including any changes from the initial arrival report)
- Any specific findings
- Any identified occupants, their status and possible location
- The incident action plan (IAP)
- Required positioning and initial tasks of units still on route

This will enable all responding units to gain a clearer picture of the situation and what will be required of them. I have earlier mentioned the various noise suppression systems currently available on later generation radios. Unfortunately, we don't all have the budgets to replace our entire radio inventory. When broadcasting a radio message, the officer must ensure that they are placed in a position where it will be as clear as possible and away from running fire pumps, ventilation saws and positive pressure ventilation engines.

It is initially the case that all responding units are making use of the general open channel whilst travelling to the incident. The arrival message and first situation report will generally also be on this channel. This channel should be kept as free as possible from general dispatch traffic while an emergency incident is in progress. When the first-in IC arrives, he/she should request that the particular incident has 'priority of communication'. This will result in all messages coming from this incident enjoying priority over anything else.

Ideally it should be standard procedure to dedicate a 'command channel' to a specific incident and ensure that all tactical communication happens on this channel. From this point onwards the only units using this channel will be the incident command post and companies assigned to the incident. A major wildland fire or structural collapse incident or any other large scale operation will see the implementation of a larger incident command structure and it will then be a requirement that all branches and sectors are able to communicate. This would almost always require additional channels for each branch. A well-defined escalation

of command process must include the communication component to support the system.

### Panic situations

Fire and rescue operations are dynamic and often fast moving incidents and there will always be a possibility that things can go wrong and ruin your day completely. Sector safety officers will continuously monitor prevailing conditions and keep IC informed of any changes that could have a profound impact on the incident and fire fighter safety. Safety officers can't be all over and the philosophy that everyone should be a safety officer is one I believe in utterly. A nozzle team conducting a fast moving fire attack inside a structure is exposed to various risks. They often also might have compromised peripheral vision, which could impact on their safety. Should any person (or unit) find themselves in any situation of imminent danger there must be a system in place for them to immediately broadcast their situation or at least raise an alarm to draw attention to their plight. Most radios are fitted with a panic buttons for this purpose. In most cases it is (a) not possible to activate this button accidentally and (b) takes a specific effort to cancel the alarm. A procedure should be in place to immediately initiate communications by either the team initiating the alarm and the commander of that sector. The nature of the situation will dictate the actions required to access and rescue the affected team. In a life threatening situation all efforts may have to be redirected to attend to the stricken person(s). It might be necessary (if possible) to dedicate a specific (Mayday) channel to this activity. Take care, however, to appreciate that the trapped or injured fire fighter might be disorientated and not be able to communicate adequately.

Some of you will remember the incident which took place on Friday, 1 July 1988, when five fire fighters from the Hackensack Fire Department in New Jersey, United States, died in a fire at the Hackensack Ford Dealership. The fire started just before 15h00 in the rear service section of the dealership. According to an NFPA Summary Investigation Report on the incident the first-arriving fire fighters

observed a heavy smoke condition at the roof area of the building. Engine company crews investigated the source of the smoke inside the building while the truck company crew assessed conditions on the roof. In the next 20 minutes, the focus of the suppression effort was concentrated on these initial tactics. Very little progress was, however, being made by the initial suppression efforts and the magnitude of the fire continued to increase. The battalion chief in command of the operation decided to adopt a more defensive strategy and gave the order to all teams to 'back your lines out.'

Suddenly, a section of the building's wood roof collapsed and an intense fire immediately engulfed the area. Three fire fighters were killed instantly while the surviving two fire fighters found refuge in a tool room where they spent the next 13 minutes calling for help. Approximately 90 minutes after the collapse, fire fighters located the bodies of their fallen comrades.

The NFPA investigation report, which was authored by David P Demers, former head of investigations for the NFPA, pointed to a "communications breakdown" as a major point of concern. The report contended that the battalion chief should have ordered nine fire fighters out of the garage within seven minutes of his arrival given the volume of fire on the rooftop, the order only given about 30 minutes after his arrival, the report said.

"This radio message was not acknowledged by any companies," the report said.

In one of the major communications flaws cited by Demers at the fire scene, all departmental communications were transmitted on a single channel or frequency. Consequently, the trapped fire fighter's appeals for help were intermingled with orders for deploying men and hoses and instructions to arriving companies. Granted, this incident happened 30 years ago but the real point I'm trying to make here is: Are our communications equipment, systems and procedures at such a level where such tragedies will not be repeated? That's the question we should be able to answer. ▲



## ETS Emergency Training Solutions Industrial Fire Competition 2019

Friday, 31 May 2019 saw several industrial fire teams taking part in the first ETS Emergency Training Solutions Industrial Fire Competition 2019. The event was held at ETS' training facility in Redan, close to Vereeniging. The competition comprised of three scenarios, which tested the participating teams' physical levels, fire fighting skills and knowledge levels.

### Main scenario

The main scenario was a simulated transformer fire and included two exposures to be protected and a leaking flange on a fuel line as well as an injured worker downstream from an isolation valve. Water was taken from a pressurised source via a 65mm x 30m supply line, divided into two 45mm x 30m attack lines.

### PPE/SCBA and forcible exit event

A team of six members, five already dressed in full structural fire fighting personal protective equipment (PPE), entered into a structure. The remaining team member then had to don full structural fire fighting PPE and self-contained breathing apparatus (SCBA) using the correct

procedures and performing the appropriate tests before donning. Once donning was performed, the team had to force exit through a simulated locked/barred door and pass a designated point. Points were deducted for exceeding the two minute allowed time for donning of PPE and SCBA.

### Toughest Fire Team Relay Challenge

This event comprised of six exercises performed in relay.

- 1st Hammer event: moving a weighted object in a channel using a hammer to drive the object
- 2nd Carry two 65mm x 30m hoses to the top of the drill tower not skipping any of the steps on the stairs
- 3rd Using a utility rope to raise by hand-over-hand method a 25-litre drum of foam to the top platform of the drill tower
- 4th Dummy drag (inside a Stokes stretcher) around a target and return to start
- 5th Roll a 65mm x 30m into a straight roll
- 6th Stretch a charged 65mm x 30m hose line and hit a target with a straight stream

### Results: main scenario

First: Midvaal Fire and Rescue

Second: Anglo Big Five  
Third: Anglo Fire Crackers  
Fourth: Anglo Rise North

### Results: PPE and SCBA

First: Midvaal Fire and Rescue  
Second: Anglo Big Five  
Third: Omnia Yellow

### Results: Toughest Fire Team Relay Challenge

First: Midvaal Fire and Rescue  
Second: Anglo Rise North  
Third: Anglo Fire Cracker  
Fourth: Omnia Red

**Best Team Leader:** Tertius Engelbrecht, Midvaal Fire and Rescue

**Best team sport:** Anglo Fire Crackers

Sponsors and exhibitors included Advanced Fire Protection, Industrial Fire and Hazard Control, Marcé Fire Fighting Technology, Dräger South Africa, Skillstrain, I-CAT Fire Solutions, Vanguard Fire and Safety, Coltri Compressors, Hamilton Hydraulics, The Fire Guy, Autodoor and Divetek.

Fire and Rescue International commends the Midvaal Fire and Rescue Team on a stellar performance! Congratulations to all participants!





# A-OSH, Securex Expos provide excellent networking opportunities

**S**pecialised Exhibitions Montgomery's Securex, A-OSH Expo and Facilities Management Expo were held from 14 to 16 May 2019 at the Gallagher Convention Centre in Midrand and offered visitors more than 300 exhibitors under one roof, as well as a number of focused seminar topics. A-OSH Expo 2019 is the continent's leading occupational safety and health expo while Securex South Africa 2019 celebrated 26 years as Africa's leading security and fire protection focused trade exhibition and was co-located for the first time with the Facilities Management Expo 2019.

There were a number of free-to-attend seminar theatres, including the A-OSH Expo Prefabricated Access Suppliers' and Manufacturers' Association (PASMA) Working at Height Theatre and the South African Institute of Occupational Safety and Health (SAIOSH) seminar theatre powered by SAIOSH and the Southern African Protective Equipment Marketing Association (SAPEMA); the Securex seminar theatre with dedicated cybersecurity content running within the 4Sight Cybersecurity Pavilion and a focused facilities management stream within the Facilities Management Expo section.

The Fire Protection Association of Southern Africa (FPASA) held its annual InFIREs Seminar 2019 on 15 May 2019 at the same venue. This year's event focussed on rational design analysis and included presentations on 'Understanding fire safety engineering principles acceding to SANS 10400 Part T and BS 7974 in the rational design phase and plan appraisal process in South Africa'; a practical session on 'A sample design for basic development for a rational design of a fire room compartment'; 'The role of the building control officer in South Africa; 'Occupancy Classification that require automatic sprinkler systems, concentrating on A, D and J Occupancy' and an interactive sprinkler practical session.

The PASMA Working at Height Theatre showcased various demos and lectures about working at height and how to use the relevant equipment, as well as the opportunity to gain Continued Professional Development (CPD) points with SAIOSH.

The dates for the 2020 event are 2 to 4 June 2020 at the same venue.



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# Higher standards

By Wayne Bailey



Wayne Bailey

As an officer in your department, you are expected to live a higher standard than the people you're responsible for during a shift. John D Rockefeller Jr said, "I believe that every right implies a responsibility; every opportunity, an obligation; every possession, a duty."

As a leader, you lose rights. You would think the opposite and say since "I'm the boss", you would have more rights. As a leader, you just lost the ability to rant and complain to your subordinates. Someone once said, "If you're going to throw up, throw up" meaning if you're going to spew negativity from your mouth, do it up the chain of command, so something can be done about it and not on the troops. By "throwing up" negative words or complaints on your guys, that cancels you as a leader.

As a leader, you must take responsibility for your actions and the ones following you. If no one is following you, guess

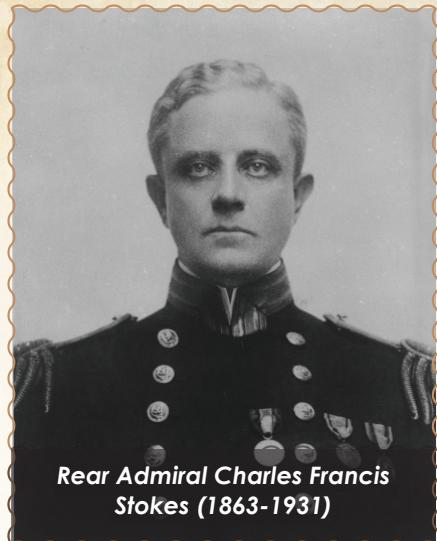
what, you're not a leader. If you're in the back on the crowd waving your hands saying "wait up, wait up, I'm your leader", you're not a leader. Leaders lead from the front and are the last ones in line for dinner.

As a leader, you would expect a new fire fighter or EMS guy not to complete an assignment given to them for various reasons. As an officer, there should never be a time that your boss must keep asking you, "Has the project or assignment been completed"? The ultimate leader says to his boss, "it's already been done" before he or she ask. 🔥



# The Stokes basket

Photo: [www.usstranquility.blogspot.com](http://www.usstranquility.blogspot.com)



**Rear Admiral Charles Francis Stokes (1863-1931)**



**A vintage military medevac litter**

**T**he Stokes basket, also called a Stokes stretcher or Stokes litter, is a metal wire or plastic litter widely used in search and rescue. Its key feature is that it can be disassembled for transport in backpacks or by pack horse. First exhibited at the St Louis World's Fair in 1904, the Stokes basket or wire basket stretcher was conceived by the US Navy physician, Charles Francis Stokes (1863-1931) who, in the Spanish-American War, witnessed first-hand the difficulties of transporting wounded through a Navy ship's gauntlet of narrow gangways, ladders and hatches.

The original Stokes litter was basically a basket of wire supported by iron rods. The patient could be secured in the Stokes litter and remain stable no matter the position of the litter. The metal frame allowed for the litter to be handled by multiple persons and also provided a place to attach ropes or straps to assist in moving the litter in confined spaces, on or off ships or on difficult terrain.

A hundred years later, the Stokes basket is still in use by military and civilian search and rescue organisations. Modern Stokes litters

are made from modern materials but the form is essentially unchanged. Instead of 'chicken wire', the basket is made of plastic mesh, formed plastic or fibreglass and the frame is tubular metal. Special use litters for search and rescue are collapsible, are outfitted with floats or are designed to slide on ground surface.

Unlike ambulance cots and transferring boards that were commonly used by the Navy at the end of the 19th Century, the Stokes was both stretcher and splint in one. It could immobilise the injured parts, allow for the carrying of a patient with minimum direct handling of extremities and, according to its inventor, offer some "comfort and a sense of security."

Once thought of as a specialised rescue tool, this basket can now be found on rescue engines, ladders and squad companies. The Stokes is traditionally used for carrying, lowering or hauling of a victim either via a rope system or on-scene manpower, depending on the needs of the scene. Either way, it is important to properly secure the victim into the litter so as to minimise movement and provide a safe egress for both the patient and the rescuers.

Many of today's stokes baskets come with preconstructed, commercial



**The Stokes litter, one of the rescue fraternity's most basic tools**  
Photo: Greg Foley, Grand County Search and Rescue



securing devices; these vary by manufacturer, however, most are either clipped or latched into place so as to secure the victim to the basket. Although these are great and easy to use, they provide minimal security for the vertical lifting of the basket. For this it may be necessary to use both the commercial device as well as webbing to effectively secure the patient.

These baskets have been notorious for spinning under the downdraft from the rotating helicopter blades. Design improvements have included using multiple attachment points, separate hold-down cables and powered extension hoists to help save more lives. Recently the US Navy has used the Stokes basket to transport patients through narrow corridors and doorways.

The Stokes basket is arguably one of the oldest medical devices in continuous use by the military. In January 1906, by order of President Theodore Roosevelt, a joint board of Army and Navy medical officers convened to look at "improving the [military] medical departments." Along with the proposal for standardised diagnostic tags and the use of a Hospital Corps pouch (forerunner of the unit bag), the medical officers called for adoption of the Stokes stretcher by the Army and Navy for use aboard hospital ships, transports and at seacoast artillery stations.

#### **Charles Francis Stokes**

Charles Francis Stokes (1863-1931) joined the Navy in 1889 as an assistant surgeon. During the Spanish-American War, he served as a surgeon on USS Solace and later was professor of surgery at the Naval Medical School. As commander of the hospital ship USS Relief, the first medical officer ever to do so, he ignited a controversy that shook up the senior Navy leadership. He was appointed Surgeon General in 1910. He is best known for his invention of the Stokes stretcher, which proved of great value used in the close confines of ships. He raised



**Phoenix Fire Department Mountain Rescue stowing the Stokes Basket**  
Photo: Alan English

the professional standards of the Medical Corps, instituted prophylaxis, which practically ended typhoid in the Navy, planned and built the naval hospital at Pearl Harbour and initiated planning for two new hospital ships, USS Mercy and USS Relief.

Charles Stokes would go on to serve as the first medical officer to command a Navy hospital ship (USS Relief) sailing it around the globe with Roosevelt's 'Great White Fleet' in 1908. In 1910, Stokes was appointed the Navy's fourteenth surgeon general, holding

the office until 1914. He retired from the Navy as a rear admiral in 1917.

Today, his namesake stretcher, still in use throughout the world, is a testament to the staying power of one Navy physician's great ideas.

"In taking up the subject of the transport of disabled persons one is amazed at the enormous energy that has been expended in that direction and is disappointed at the crudeness of the devices that have been evolved," said Rear Admiral Charles Francis Stokes.



# 2019

## June

**3 - 7 June 2019**

### **Fire-Rescue Med 2019**

Fire-Rescue Med is a fire-based EMS conference addressing the issues impacting today's leaders. Attendees turn to FRM for the education and training they need to stay ahead on today's tough issues, including current events

**Venue:** Henderson, Nevada, US  
For more information visit:  
[www.iafc.org/events/frm/](http://www.iafc.org/events/frm/)

**8 - 9 June 2019**

### **Toughest Fire Fighter Alive 2019**

This is the hardest fire fighter competition in the world and it is an event where you can get the strength and physical fitness to be effective at operational incidents

**Venue:** Mönchengladbach, Germany  
For more information visit:  
[www.tfa-germany.de](http://www.tfa-germany.de)

**18 - 19 June 2019**

### **The 9th China International Fire Safety and Emergency Equipment Expo CFE 2019**

CFE 2019 is expected to cover a total display area of 40000 sqm and attract over 600 exhibitors. The exhibition will focus specifically on the solution of fire safety, security and policing, road safety, chemical safety, explosion protection, emergency rescue and PPE, including a series of concurrent programs such as Global Intelligent Safety Summit

**Venue:** Guangzhou, China  
For more information visit:  
<http://gz.cfe.cn.com>

**18 - 20 June 2019**

### **Firex International 2019**

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, cutting-edge solutions and the essential knowledge to ensure life safety. So whether you work solely in the

fire industry or across both fire and security, a visit to FIREX International is a must

**Venue:** London, UK

For more information visit:  
[www.firex.co.uk](http://www.firex.co.uk)

**23 – 25 June 2019**

### **JOIFF Industrial Fire and Explosion Hazard Management Africa Summit 2019**

The JOIFF Industrial Fire and Explosion Hazard Management Africa Summit provides a unique opportunity for African High Hazard Fire Specialists to meet, discuss, learn and network with almost 200 Industry colleagues from all over Africa.

**Venue:** Secunda

For more information:  
Email: [fulcrum.consult@iol.ie](mailto:fulcrum.consult@iol.ie)

## September

**12 - 15 September 2019**

### **World Rescue Challenge 2019**

The World Rescue Challenge sees world class rescue and trauma teams compete annually in an event designed to challenge emergency service personnel

**Venue:** La Rochelle, France  
For more information visit:  
[www.wrescue.org/World-Challenges](http://www.wrescue.org/World-Challenges)

**16 - 20 September 2019**

### **Regional Advanced Integrated Fire Management Course**

Regional advanced integrated fire management course in the optimum use of prescribed fire and regional fire prevention levels

**Venue:** Ligna Lodge, Sabie, Mpumalanga

For more information:  
Email: [nderonde@dorea.co.za](mailto:nderonde@dorea.co.za)

**18 - 19 September 2019**

### **Disaster Management Institute of Southern Africa (DMISA) Annual Conference**

The annual conference of the institute is the biggest annual disaster management conference in Africa and routinely attracts more than 300 delegates. The

institute is recognised as the mouthpiece of the disaster management profession in Southern Africa. The conference provides an annual opportunity for a diverse range of stakeholders in disaster management from across Africa to gather and share skills, knowledge and experience.

**Venue:** ATKV Resort Hartenbos in the Mossel Bay Municipality, Garden Route District

**Contact:** Karin Muller  
Tel: 011 822 1634  
Email: [Karin@disaster.co.za](mailto:Karin@disaster.co.za)

**20 - 21 September 2019**

### **Toughest Firefighter Alive South Africa**

The South African Toughest Firefighter Alive Championships will be hosted by the fire fighters for Excellence Foundation in Cape Town, South Africa

**Venue:** Roeland Street Fire Station, Cape Town

**Contact:** Mark Smith  
Email: [tfa@fireandrescue.co](mailto:tfa@fireandrescue.co)

**24 – 26 September 2019**

### **Securexpo East Africa**

East Africa's foremost exhibition and conference dedicated to the security, fire and safety industry in 2019 and the region's leading platform for trade.

**Venue:** The Visa Oshwal Centre, Nairobi, Kenya

**Contact:** Ben  
Email: [Ben.Dale@montex.co.uk](mailto:Ben.Dale@montex.co.uk)

# 2020

## June

**15 - 20 June 2020**

### **Interschutz 2020**

Originally conceived as a trade show for the fire services, Interschutz has grown to become the world's leading exhibition for fire prevention, disaster relief, rescue and safety and security

**Venue:** Hanover, Germany  
For more information visit:  
[www.interschutz.de/home](http://www.interschutz.de/home)

## *I could have saved a life that day*

I could have saved a life that day  
But I chose to look the other way.  
It wasn't that I didn't care  
I had the time and I was there.  
But I didn't want to seem a fool  
Or argue over a safety rule.  
I knew he'd done the job before  
If I spoke up he might get sore.  
The chances didn't seem that bad  
I'd done the same, he knew I had.  
So I shook my head and walked by  
He knew the risks as well as I.  
He took the chance, I closed an eye  
And with that act, I let him die.  
I could have saved a life that day  
But I chose to look the other way.  
Now every time I see his wife  
I know I should have saved his life.  
That guilt is something I must bear  
But isn't something you need to share.  
If you see a risk that others take  
That puts their health or life at stake,  
The question asked or things you say  
Could help them live another day.  
If you see a risk and walk away  
Then hope you never have to say  
“I could have saved a life that day  
But I chose to look the other way.

**By Don Merrill**

**STIHL®**

# THE STIHL MS 462 R CHAINSAW – HEAVY DUTY WITHOUT BEING HEAVY

The MS 462 R is a specialist emergency services chainsaw that can slice through roof sheeting, vehicles – even bulletproof glass. High-powered even at mid speed range, this chainsaw has a tungsten chain 36 RDR and an environmentally-friendly engine with 2-MIX engine technology for an estimated 50% reduction in emissions compared to the same power two-stroke engines without 2-MIX technology. In addition to making it kinder on operators, especially in enclosed spaces, this model is highly cost effective, with up to 20% less fuel consumption. It also has a heavy duty long-life HD2 air filter system for minimal downtime. This filter is made from polyethylene filter material with up to 70% finer pores than fleece and polyamide filters to trap even very fine dust. In addition, it is oil and water-repellent and thus very easy to clean. Specially designed for fire, rescue and emergency services personnel, this machine is lightweight without losing its powerful STIHL performance. Easy handling features include an extremely efficient anti-vibration system and an extra large starter grip. Saving money, saving lives – a winning formula.

*Like any premium item, STIHL products are only available at specialised dealers nationwide, for expert advice and superior after-sales service.*



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