

FIRE AND RESCUE INTERNATIONAL

Integrated fire, rescue, EMS and incident command technology

Volume 2 No 11



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Integrated fire, rescue, EMS and incident command technology

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Comment



Lee Raath-Brownie

Fire and Rescue International (FRI) proudly presents its 23rd edition. An interesting mixture of local and international news leads the article roundup followed by the customary hands-on practical advice. Of interest is our fire service profile and interview with its chief fire officer. There is also an emphasis on fire safety and wildfire awareness. We trust you will find this issue informative and share it with your colleagues!

Cover profile

Our front cover features the two new rural rescue pumpers at Matjhabeng Local Municipality. The vehicles were manufactured by Fire Fighting Equipment Africa and are two of six vehicles acquired by Mathabeng to beef up its response capacity.

FRI Images photographic competition

A timeless photograph depicting a local fire fighter won the photographic competition this month. See page 3 for details.

CONGRATULATIONS!

Submit your high-resolution photograph featuring a rescue, emergency, incident or fire scene and win R2 000 cash!

News section

South Africa's heavy rainfall in March this year and the apartment blaze that killed two Boston fire fighters in the USA lead our news section. Earthquakes in China, USA and Chile and the massive mudslide in Washington are also included. Other news featured comprise the major structural fire in San Francisco, the cyclone that hit New Zealand, a tragic boat accident in Uganda and an update of the investigation into aerobatic pilot, Glen Dell's accident.

Fire Service

We profile Victor Khanye Fire and Rescue Service situated in Delmas, South Africa and we share its history, risk profile, apparatus specifications, challenges, major incidents and staff complement. We also interviewed chief fire officer, Frans Bolton and learned what has led to his career path as chief. Chief Bolton shares his journey, aspirations and leadership approach.

Structural collapse

Void and void exploration post structural collapse is investigated by technical expert, Colin Deiner, who discusses the dangers of these taxing rescues. Deiner describes the reasons why buildings collapse; the various collapse patterns and the impact thereof on the rescue method. He furthermore details void exploration and highlights the importance of incident management.

Training

We profile Indiza Fire and Training Services, its courses, challenges, academy and onsite training abilities. We also feature and update on the new Veldfire Management programme offered by the Nelson Mandela Metropolitan University's George campus.

Heritage

Lenny Naidoo details the tradition of red fire engines.

Fire protection association

FRI profiles the recently formed Heidelberg Fire Protection Association in Gauteng and reviews its area of operations, risk profile, challenges and major incidents.

Wildfire awareness

Rob Erasmus of Enviro Wildfire Services' reviews the wildfire awareness programme presented in the Western Cape, South Africa.

Working on Fire

We profile the newly established Working on Fire Mamre team based in the Western Cape.

Emergency medical services

The Hartbeespoort Emergency Rescue Unit is based in Madibeng Local Municipality and we share its expertise, challenges and training capabilities.

Fire safety

The important role that public information plays in fire safety is highlighted by Rodney Eksteen, who discusses the various functions, objectives, principles, goals and methods of communicating the fire safety message.

Leadership

Wayne Bailey shares his insights on successful leadership practises.

Institution of Fire Engineers (IFE) conference and AGM

FRI attended the recently held IFE AGM and reviews its conference.

The Salvation Army

The Salvation Army was founded in 1865 and has served people in more than a 120 countries worldwide. We share its rich history of welfare and humanitarian centres.

We thank our readers, advertisers and contributors for their continued support. We proudly serve those who serve! Fire and Rescue International is your magazine. Read it, use it and share it!

Lee Raath-Brownie
Publisher





Congratulations to

Aldus Smith for his photograph 'Timeless' taken with a Nikon D600 using a Nikkor 24-85mm lens with an ISO of 200, a shutter speed of 1/125 and an 8 F-stop.

Photo description:

I was doing an engagement shoot for a friend of mine, when I took this photo. He is the fire fighter in the photo (Tertius Engelbrecht).

Aldus Smith wins this month's prize money of R 2 000!

Well done!

This month's FRI images winner!

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

Fire and Rescue International (FRI) has introduced a monthly photographic competition to all its readers. This exciting competition offers you the opportunity of submitting your digital images of fires, fire fighters, disasters, emergencies and rescues.

The rules are simple:

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

Entries must include:

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

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

>>ENTER NOW!



Matjhabeng beefs up response capacity



Two new rural rescue pumpers manufactured by FFE Africa

The Matjhabeng Local Municipality in the Free State, South Africa, held a special vehicle handover ceremony on 24 April 2014, marking the arrival of the first two of six new rural rescue pumpers that the municipality is acquiring for the regional fire service.

The two new rural rescue pumpers, which began operating on 22 April 2014, are worth a collective R4 million and will be based at the Matjhabeng Fire Service headquarters in Welkom.

The handover ceremony of the new vehicles was held at the Welkom

Fire Station with a string of municipal officials attending the event. The dignitaries included Matjhabeng Local Municipality Public Safety and Transport head of department, Rankhumise Mokhuoa and Matjhabeng Member of Mayoral Committee (MMC) for Public Safety and Transport, Joseph Sephiri.

The vehicles were manufactured by Fire Fighting Equipment Africa (FFE Africa), at the company's manufacturing and maintenance facility in Potchefstroom in the North West Province.

The company has been contracted to build six vehicles over a three year period for the municipality's fire services that currently has four fire stations in four different towns namely, Odendaalsrus, Welkom, Virginia, Henneman, with an additional satellite fire station in construction and set to be opened in January 2015.

FFE Africa sales director, Marius Koekemoer attended the handover event in Welkom and shared his experience working with the emergency services at the Matjhabeng Local Municipality.



Handover ribbon cutting ceremony with Matjhabeng municipality officials



FFE Africa handing over keys to Matjhabeng Local Municipality officials

"I have been in the industry for 15 years and have not met a more enthusiastic team," Koekemoer told luminaries at the handover ceremony, which included Matjhabeng's acting executive director for community services and law enforcement, Eric Motheoane and the municipality's fleet manager, Lucien Lezar.

As the fleet manager for the municipality, Lezar was responsible for providing the vehicles specifications and requirements to the manufacturer. Lezar says that the fire service personnel made a request for the technical needs, including the specifications of the vehicles. "We as fleet management department of the Matjhabeng Local Municipality, along with our mechanics, made any interventions that were required to the system," says Lezar.

He adds, "We looked at what is manageable and forwarded this to the supply chain department of the Matjhabeng Local Municipality." The municipality is satisfied with the outcome and Lezar is also complimentary of the vehicles manufactured by FFE Africa. "We are absolutely pleased with the vehicles, it is a magnificent model. It is actually the first type of Iveco in our area and it really suits our needs."

Sustainable service

Matjhabeng Public Safety and Transport MMC, Joseph Sephiri, said that the delivery of the new vehicles had come at the 'right time as the winter fire season approaches'.

Sephiri said that the maintenance of the vehicles would be important. "The services of these vehicles must be done in such a way that it maintains a relationship with the fire engine service provider." He added, "The service provider and fire service must forge a relationship that is sustainable."

Matjhabeng Public Safety and Transport head of department, Rankhumise Mokhuoa, said that the vehicles would benefit the Matjhabeng people, as well as the surrounding municipalities that cannot afford equipment such as this.

The municipality has had significant challenges, in terms of finances, stated Mokhuoa. He said that the delivery

of the two new fire engines is a 'very special event' in the municipality. "We wanted to give it this kind of appreciation," said Mokhuoa, referring to the special handover ceremony attended by numerous public officials. "I thank the management of Matjhabeng Municipality for realising the need for the equipment and vehicles. It shows that they have the community at heart," said Mokhuoa.

Vehicle specifications

FFE Africa provided a turnkey service to Matjhabeng Local Municipality, supplying a full complement of fire equipment and custom-built crew cabs on the Iveco Eurocargo chassis.

The custom cab seats four crew members and is fitted with purpose made self-contained breathing apparatus (SCBA) seats.

The vehicles feature a mild steel sub-frame and swivel system for superstructure and a hose bed is fitted to the superstructure roof. "The entire superstructure is manufactured from aluminium extrusions and plates," says Koekemoer.

The rural rescue pumpers are equipped with a seven-metre extension ladder and 4,8-metre roof ladder fitted to the superstructure roof and a full complement of rescue, fire fighting and extrication equipment were supplied with the vehicles.

"The pumpers have the unique Trident Airprime system fitted; the first of its



Matjhabeng MMC for Public Safety and Transport, Joseph Sephiri

kind in the South African market. These primers are nonmechanical and nonelectrical," states Koekemoer.

The trucks are fitted with a WS Darley HM500 pump delivering 2 000 litre per minute at 10bar. In addition to this, the pumpers are also fitted with the Darley Fastfoam system and have custom-built pump control panels with a 3 000 litre water tank and a 250 litre foam tank.

FFE Africa does not see this as a once-off delivery but the beginning of a long-term relationship with the Matjhabeng municipality for the upkeep and maintenance the fire engines. "This is a 20-year relationship," said Koekemoer. ▲



FFE Africa's Marius Koekemoer with public officials

Heavy rainfall creates havoc across South Africa in March



Flooding in the crocodile infested Mogol River in Limpopo

Hheavy rainfall and flooding in KwaZulu-Natal (KZN), North West, Limpopo, Gauteng and Mpumalanga provinces in South Africa caused damage to housing infrastructure and washed away roads and bridges in many parts of the country in March this year.

The National Disaster Management Centre (NDMC) activated its Joint Operations Centres (JOCs) and advised provincial and municipal disaster management centres in provinces affected by the floods to coordinate the necessary relief aid and rescue operations through the JOCs.



A car swept away after Bela Bela dam floods at the Kariba Lodge in Limpopo

Head of the NDMC, Ken Terry, said that a formal investigation and assessment team, which included professional engineers, will provide a realistic assessment on the total cost of the damage.

According to an NDMC report, preliminary flood incident data indicated that 400 to 500 houses, both formal and informal, were damaged. The worst affected areas were the metropolitan areas of Johannesburg and Tshwane, where an estimated 12 people lost their lives.

In KZN Province, an estimated 200 households were affected by the heavy storms and incessant rains, which covered a widespread area across the province.

Gauteng experienced its heaviest rainfall in 14 years in March, according to the South African Weather Service (SAWS).

Gauteng Provincial Disaster Management Centre (PDMC) head, Elias Sithole, said the most affected areas in the province were the City of Johannesburg and Ekurhuleni, with about 160 informal dwellings being flooded.

Limpopo provincial government stated that about 1 300 were rescued during the week ending 14 March, which included 700 families of which 177 were from the town of Lephalale, reported Limpopo Province spokesperson, Phuti Seloba.

Helicopters were used to rescue residents in Limpopo after the Bela Bela dam wall burst, sending waves of water into the streets and homes.

In Mpumalanga Province, a 25-year old homeless man was rescued from the concrete base of a bridge, just above the water level of the flooded Sand River. The South Africa Police Service (SAPS) diving unit was called after locals of the village near Bushbuckridge in Mpumalanga, spotted the man clinging to the bridge.

The South African National Defence Force (SANDF) was placed on standby to assist with flood relief during the heavy rainfall.

SANDF spokesperson brigadier-general, Xolani Mabanga, said that personnel were ready to assist whenever they were required to do so. He said that it was common for the SANDF to mobilise and be ready to assist in bad weather and that officials monitored the situation.

According to SANDF lieutenant colonel, Piet Paxton, the Defence Force remained on standby throughout the process. "We had five helicopters on standby to assist with search and rescue. The only rescue that was done was by Netcare 911, who evacuated people in specific situations, including a pregnant lady who was taken to hospital," stated lieutenant colonel Paxton.

"The SANDF was not involved in any rescue or search mission," he said.



Roads, bridges and homes were damaged after heavy rains and flooding in March

in the Waterberg District Municipality. "Municipalities or provinces that want to declare a disaster may qualify for national financial support," he said.

Meanwhile, the national electricity utility, Eskom, was forced to institute rostered power cuts across the country on 6 March, owing to the combined effects of a constrained electricity supply caused by maintenance, coupled with damp coal at the power stations caused by ongoing heavy rains.

This was the first time that such 'rolling black-outs' had been implemented since January 2008. ⚠️



Heavy rainfall in March caused flooding in many parts of the country

Emergency relief funding

In March, the NDMC stated that it was ready to assist search and rescue services, as well as coordinate emergency relief funding, should this be required by the affected provinces.

The NDMC remained in constant communication with SAWS, the South African National Defence Force (SANDF) and National Joint Operational and Intelligence Structure (Natjoints), as well as the Provincial Disaster Management Centres (PDMCs) to ensure the effective coordination of the issuing of warnings and relief and rescue services.

Corporate Governance and Traditional Affairs (COGTA) deputy minister, Andries Nel, said that Limpopo Province indicated its intention to declare a state of local disaster

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Apartment blaze kills two Boston fire fighters

Two fire fighters were killed by a fast-moving, wind-driven fire that ripped through a Boston brownstone building in Massachusetts, US, on 26 March this year.

The wind-whipped blaze tore through an apartment building, causing a fiery explosion that trapped the fire fighters in the basement and sent many residents screaming into the street.

Deputy fire chief, Joseph Finn, identified the two deceased fire fighters as, Lieutenant Edward J Walsh, a 43-year old from a long line of fire fighters and Michael R Kennedy, a 33-year old US Marine Corp retiree.

Reports state that Walsh and Kennedy went inside the building and then descended into the basement, where it appears the fire originated. They called a mayday

two or three minutes after entering, but couldn't be rescued.

Authorities said the cause of the fire remained under investigation, but that the wind blowing off the Charles River caused it to rage out of control within minutes, engulfing the neighbourhood in a thick cloud of black smoke.

"The fire escalated very quickly," said Boston deputy fire chief, Joseph Finn. "In 30 years, I've never seen a fire travel that fast, escalate that quickly and cause such havoc."

State police closed a major roadway along the Charles River behind the burning building. An assistant district attorney was being sent to the scene, which is standard procedure in cases of serious or potentially life-threatening injuries.

The blaze was described as a nine-alarm incident, the department's highest level of severity and drawing more than 150 fire fighters and 30 trucks to the scene, according to



Fire fighters escort the body of one of their fallen colleagues from Boston Medical Centre

A magnitude-5.3 earthquake struck China's Yongshan

Earthquake displaces thousands in southwest China

A magnitude-5.3 earthquake struck a county in southwest China on 5 April this year, injuring at least 25 people, while 21 000 had to be relocated.

The quake hit Yongshan County in Yunnan province, near Sichuan Province, with the epicentre 13-kilometres deep, reported the China Earthquake Networks Centre.

According to the county government's information office, at least 68 600 residents were affected in the earthquake, with five people being in a serious condition.

Among the 2 731 damaged houses, 75 collapsed. A total of 48 schools were damaged across six towns.

Since local students were on a three-day 'Tomb-sweeping' holiday, there were no casualties from schools, according to local education authorities.

The local government in Yunnan distributed 2 150 tents and a large sum of quilts, food and water to quake victims in temporary shelters.


More than 1 300 rescuers searched through debris for possibly trapped victims and helping repair roads.

According to the Xinhua news agency, the quake's epicentre was located in the municipal area of Xiluodu, where the country's second-largest hydroelectric power plant is located. Local authorities said the hydroelectric plant suffered no damage from the earthquake.

Electricity, transportation and communications were disrupted in Yunnan after the earthquake hit the region, however, it returned to normal soon afterward.

The earthquake-hit area was in a mountainous region. Two roads to the epicentre had been blocked by fallen rocks, but were later reopened.

Railway authorities said the quake did not disrupt railway transportation and trains from Yunnan Province's capital city, Kunming to neighbouring cities were in normal operations.

Southwest China is prone to earthquakes, with a quake in the Yunnan tourist area of Shangri-La killing three people in September last year and leaving 55 000 homes damaged. 

Boston Fire Department spokesperson, Steve MacDonald.

He said the fire erupted mid-afternoon, causing huge eruptions of flames from the roof of the four-storey building along with a massive column of smoke.

The fire, which broke out just before 15h00, was so dangerous that fire fighters could not recover Walsh's body until nearly 20h00.

Lives saved


Walsh and Kennedy's actions allowed fire fighters to rescue a number of residents from the upper

floors of the apartment building, according to Boston officials.

"We lost two heroes here today," said Boston Mayor, Martin J Walsh, in a press conference. "These two heroes ran into a burning building and got people out."

It was the first time Boston fire fighters had died battling a fire since 2007, when two fire fighters were killed in a blaze at a restaurant in the West Roxbury neighbourhood in Boston.

In 2009, Lieutenant Kevin M Kelley was killed when a ladder truck lost its

brakes and crashed into an apartment building in Mission Hill, Boston. 



"The fire escalated very quickly," said Boston deputy fire chief, Joseph Finn

Mudslide destroys homes and buries residents



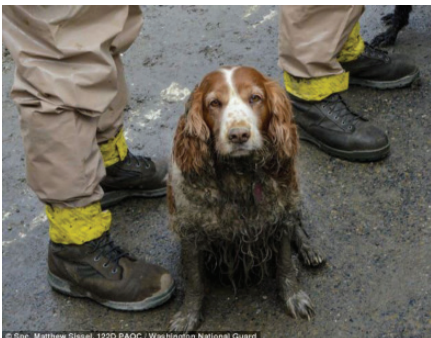
A mudslide in Oso, Washington in the US claimed 30 lives and destroyed numerous homes

A massivelandslideslammed into homes on a hillside town in Washington, US, on 22 March this year, with 30 people killed and numerous others reported as missing after nearly two weeks of search and rescue efforts.

Rescue workers combed through debris from the landslide that sent a wall of mud cascading over dozens of homes on the outskirts of Oso, a rural Washington town.

The death toll continued to rise as rescue workers searched through an area covering 121 hectares. Of the 30 deceased, the Snohomish County Medical Examiner's office was able to positively identify 22 people.

A pack of sniffer dogs assembled from different parts of the US assisted



A search dog waits by the feet of a Washington National Guardsmen

in the Washington mudslide search and recovery operation.

Search and rescue teams turned back earlier in the rescue efforts after attempting to reach an area where voices were heard crying as the mud was too thick and deep to continue.

Snohomish County Fire District 21 chief, Travis Hots, said that rescuers couldn't hear any signs of life once they got closer and the decision was made to back out for safety reasons.

Workers were later able to create a three-dimensional grid of the search area. Previously, much of the work was on the surface of the slide.

Washington officials say receding floodwaters was a relief during the search operation.

The cause of the slide was believed to be groundwater saturation from heavy rainfall during the month of March this year, according to AccuWeather senior meteorologist, Alan Reppert.

Officials from across Washington State sent people to help, including searchers, police officers, detectives and other staffers.

"We are getting some fresh muscles and some new eyes working the debris fields," said Bellevue Police Department lieutenant, Richard Burke.

The search area covered about 121 hectares. As much as 30 percent of it is still under as much as 34 metres of mud. Those areas cannot be searched, because the mud is still too wet and unstable, said Burke.

The recovery operation did not show signs of letting up, a week after the incident, as heavy equipment operators were working to complete a rudimentary service road for emergency workers connecting the two sides of the local highway that was washed out by the slide.

Hallowed ground

Ron Brown, a Snohomish County official involved in search-and-rescue operations, said the debris field may end up being the final resting place for some victims, who may be buried so thoroughly they could not be found.

"That's going to be hallowed ground out there," said Brown.

Washington Governor, Jay Inslee, described the mudslide 1,6 square kilometres of 'total devastation'

A fire destroyed a block of commercial properties in Garrettsville, Ohio

Blaze destroys block of buildings in US

A massive fire levelled a block of businesses in a town in the state of Ohio in the US, on 22 March, including a 160-year-old village landmark that recently was the focus of a revitalisation effort.

Thirteen businesses located in three buildings on Main Street in Garrettsville, Ohio were destroyed in the village of 2 000 residents.

Garrettsville Mayor, Rick Patrick, said there were no deaths or serious injuries in the blaze that burned for several hours as fire fighters fought to contain it.

Tankers shuttled water to the scene for fire crews after the village water system apparently was overwhelmed. Clouds of smoke billowing in the downtown were visible many kilometres away. A large crowd of

spectators gathered as the flames consumed the structures.

Many took photos and captured the collapse of the three-story frame building dating to the 1850s. "In recent years, this is the worst fire we've had," said Ohio-Hiram fire chief, Bill Byers, who was at the scene.

Witnesses said the fire started around 13h00 with smoke coming from the back corner of the buildings.

Residents of the town came together to help those trying to save their livelihoods and history, as the buildings burned.

Fire departments from four counties eventually responded with personnel and equipment, including more than a dozen tanker trucks that trucked in water to support the village water system.

Fire fighters from neighbouring communities in Portage County, Ohio, also assisted the Garrettsville fire fighters battle the blaze.

Fire fighters were still on scene 23 March, dealing with hot spots, with two crew members, treated for smoke inhalation at a local hospital. The fire took place during the 150th anniversary year of Garrettsville being incorporated as a village, according to Mayor Patrick.

"For the amount of fire fighters and people out there, it is remarkable that no one was hurt," said Patrick. "It could've been a lot worse. Hopefully, we'll be able to rebuild and I'm hoping all those businesses will come back."

Jeff Koehn, an arson investigator with the Ohio State Fire Marshal, said no foul play is suspected as the source of the blaze. 🔥

after flying over the disaster area. Gov. Inslee declared a state of emergency and said that he was in talks with the US' Federal Emergency Management Agency about a federal disaster declaration.

As authorities tried to determine how to get responders on the ground safely, helicopters were flying over the area looking for people who may have been able to get out on their own and for any other signs of life.

The mudslide destroyed as many as 30 homes and forced evacuations of nearby areas out of fears of flooding.

The number of missing had at one point been as high as 179. However, after close to two weeks of search and rescue operations this number was reduced to 22 missing persons.

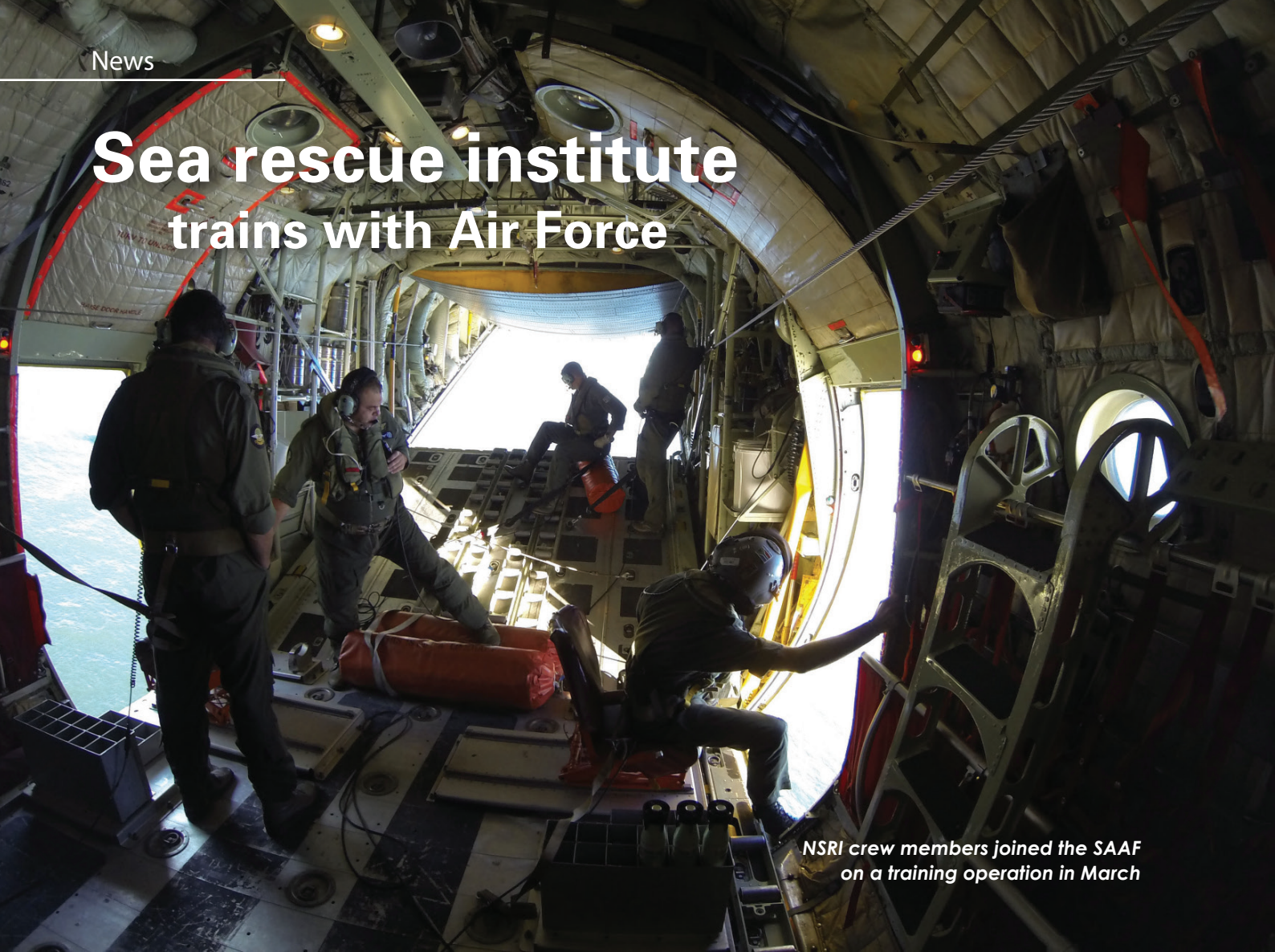
"These are 22 people that we cannot account for. These are 22 people

whose loved ones are grieving", said Snohomish County executive director, Gary Haakenson.

"We want to do all we can to find them and put some closure in place for their families," he added.

Mourners gather to remember the victims of the Washington mudslide on 5 April, in the first of a series of memorial services, even as the search continued for more victims. ⚠️

Sea rescue institute trains with Air Force



NSRI crew members joined the SAAF on a training operation in March

The National Sea Rescue Institute (NSRI) spent time training in maritime flight operations with the South African Air Force (SAAF) 28 Squadron in Cape Town, South Africa for a few weeks in March this year.

Two NSRI crew members, Robert Fine and Mahboob Ebrahim, were

invited to fly with the SAAF crew and observe training operations onboard a Hercules C-130 plane.

28 Squadron is widely recognised as one of the hardest working units in the SAAF with its more than 50-year-old C-130BZs routinely providing logistic support across the country and the continent.

One of its other missions is search and rescue and training in this aspect of operations with the National Sea Rescue Institute (NSRI) was a long way from the squadron's home base at AFB Waterkloof in Gauteng.

The two-week training programme began at Ysterplaat Air Force Base, an SAAF airbase located in Cape Town on the southwestern coast of South Africa, where a flight briefing was conducted with the SAAF and the NSRI training delegates.

The plane departed for a location just off Saldhana Bay and two South African National Defence Force (SANDF) 'casualty' vessels were specially deployed on scene for the C-130 to spot and then deploy life rafts close to their location.

Robert Fine reports, "On arrival in the area, the C-130 started a search pattern and once the 'casualties' were located, the flight pattern was



A life raft is pushed out of the back of the aircraft with a small parachute

Passenger train crash at airport in Chicago, US

A train crash at the Chicago Transit Authority Blue Line in the US injured 32 people after the train jumped the tracks at a terminal at Chicago's O'Hare International Airport on 24 March this year.

The passenger train crashed through the end of the line in the early morning hours at the Chicago Airport and barrelled up an escalator and stair. None of the injured passengers or the train's operator sustained any life threatening injuries.

Almost all of the 32 people taken to four hospitals were released by the afternoon.

It was not immediately clear how fast the train was moving, but authorities were looking at speed as a possible factor, said Chicago's Transport Authority spokesperson, Brian Steele.

The Chicago Transit Authority train that ran on electricity remained in place for at least a day while investigators from the National Transportation Safety Board (NTSB) tried to determine how it jumped a bumper at the end of the line.

The eight-car train failed to stop at the end of the line when it arrived at the airport station at 02h00, according



A train crash at Chicago's O'Hare International Airport injured 32 people

to Chicago fire officials. The lead car appeared to have climbed an escalator adjacent to the passenger platform.

"I've investigated many accidents and trains do different things," NTSB investigator, Tim DePaepe told media. "It's all about kinetic force. I have not seen an accident like this personally."

Amalgamated Transit Union Local 308 president, Robert Kelly, said union official told reporters that the train's driver may have fallen asleep. "The operator might have dozed off. She did indicate to me that she

was extremely tired," said Kelly, who spoke to the operator after the crash. "She doesn't have an explanation of how this happened."

NTSB investigator, Ted Turpin, said that the train operator jolted awake just in time for her to see the lead car climb the stairs that started not far from where the track ran out.

It wasn't the first time she has dozed off at the controls, she told investigators. In February, the driver of the train slightly overrode a station, leaving the train partially past the platform. ⚠️

changed so that multiple smoke markers could be dropped in close proximity. The markers would assist with wind direction and enable the pilot to line up the aircraft on final approach. Once in position a life raft is pushed out of the back of the aircraft with a small parachute deploying to break its fall. It automatically inflates on hitting the water."

The Hercules C-130B transport has a range of approximately 2700 nautical miles (Nm) and eight hours endurance. The four-engine aircraft can run search operations up to 1300 nautical miles offshore with an hour on station depending on weather conditions and other variables.

Different size life rafts can be dropped depending on the number of people needing rescue. Additional life rafts are carried aboard in case the initial drop is unsuccessful.

The SAAF 28 Squadron, under the command of Colonel Jurgens Prinsloo, has nine C-130BZs on its inventory to fulfil tasks ranging from logistic support for SANDF continental peacekeeping and peace support operations, humanitarian operations, search and rescue, support to the South African Army and general airlift.

The squadron is the SAAF's main medium-heavy airlift squadron and

last June it marked its 70th anniversary at the same time as the 50th in-service anniversary of the C-130BZ. ⚠️



Hercules C-130 stationed at the SAAF base in Cape Town

New executive committee for Hout Bay Volunteer EMS

Hout Bay Volunteer EMS has appointed a new executive committee, which include Marcus Ragaller, Liz Robbins, Cameron Horner, Matthew Rosenberg (CEO), Michael Boyd, James Bodmer, Charmaine Cunningham and Jürgen Kahle.

This team of eight will be in charge of running the service for the next 12 months and will each take on a portfolio such as training, finance, logistics etc.

"We are looking forward to a great year as we celebrate our 21st anniversary! More details will follow but we have a number of celebrations planned for later in the year," says CEO, Matthew Rosenberg.

"The service continues to attract more members, especially those with Advanced Life Support qualifications and we look forward to going from strength to strength," confirmed Rosenberg. ⚠



Marcus Ragaller, Liz Robbins, Cameron Horner, Matthew Rosenberg, Michael Boyd. Seated: James Bodmer, Charmaine Cunningham, Jürgen Kahle.



A mighty 8,2-magnitude earthquake struck off the coast of northern Chile in April this year, triggering small landslides, cutting power and generating a tsunami in the South American country.

The quake struck in an area close to Chile's port city of Iquique, 86 kilometres from a mining area in the region, resulting in the death of four men and one woman.

Waves of up to 2,1 metres hit certain areas of Chile and the quake also

caused power cuts, fires and landslides, according to the US Geological Survey.

The earthquake was violent enough to move the Chilean city of Concepcion in the western region of the country and in Santiago in the west-southwest region.

Modern buildings were shaken in the neighbouring South American countries of Peru and in Bolivia's high altitude capital of La Paz, which is more than 470 kilometres from Iquique.

At least eight strong aftershocks followed in the few hours after the quake, including a 6,2 tremor.

Rescue workers were deployed in the city of Iquique to assist with the evacuation of tens of thousands of people in the country's affected areas in the coastal region, where a state of emergency was declared.

Over 900 000 people were evacuated in the low-lying coastal areas but returned to their homes after the ▶

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2ND BIENNIAL CONFERENCE OF THE SOUTHERN
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**First Call
for Papers!**

Public Invitation

Conference Theme:

Post 2015: Drivers, scales and context of disaster risk in the SADC Region

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6 - 8 OCTOBER 2014

Sub Themes

- Disaster Risk: The Namibian Context
- Humanitarian relief in SADC
- HFA current implementation, and future perspectives
- Gender and Disaster Risk
- Technological innovation for DRR
- Public management and administration in disaster risk management: Global, Regional and local perspectives

The Multidisciplinary Research Centre at the University of Namibia herewith invite and welcome academic, researchers, post graduate students, and disaster practitioners to the 2nd Biennial Conference of the Southern Africa Society for Disaster Reduction. The Conference will take place from 6-8 October 2014 in Windhoek, Namibia.

Note that although this is a Regional Conference participants from all the Regions and Globe are welcome to present and or attend the Conference.

Aim of the Conference

- To provide a platform for the presentation, discussion and debating of different academic and professional approaches to Disaster risk reduction
- To engaged in mentorship, policy influence and advocacy

Abstract

Abstracts can be submitted online (<http://www.sasdir.org>) before 15 April 2014.

Abstracts should contain the following:

- Rationale of the research
- Method of investigation
- Main findings
- Conclusions or recommendations

Abstracts should be limited to 350 words. Abstracts accepted for full paper submission will be communicated to the authors by 30 April 2014. Successful authors (or one of the authors) will be required to register and attend the conference. Guidelines for the submission of full papers will accompany the notification. All papers will be double-blind peer reviewed by selected international experts. Successful papers will be published in a special edition of the journal *Jambá: Journal of Disaster Risk Studies*

Core dates

15 April	Deadline for submission of abstract
15 May	Notification of acceptance of abstract
30 May	Final date for early bird registration
30 June	Submission of full length papers. Feedback will be provided as soon as possible after the double-blind peer review process
30 August	Final Submission of correct full length papers
15 September	Final Date for Registration

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Students

NAD (ZAR)

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2,000.00

250.00

2,000.00

350.00

2,000.00

250.00

350.00

500

US\$

370.00

410.00

185.00

25.00

185.00

35.00

185.00

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50.00

Gas leak causes building explosion in New York



A gas leak caused an explosion and the collapse of a building in Manhattan, New York

A gas leak triggered an explosion that destroyed two buildings in Manhattan in New York, US, leaving eight people dead and 74 injured on 12 March this year.

More than 250 members from the New York Fire Department (FDNY) were dispatched to extinguish the remnants of the blaze. Rescue workers searched through a mountain of debris at the site of the building collapse in the days following the incident.

New York City (NYC) Mayor, Bill De Blasio, warned that the explosion had a

'very heavy impact on the surrounding buildings' confirming that the gas leak was to blame for the explosion and subsequent collapse of two buildings in the East Harlem neighbourhood of Manhattan.

Hospitals reportedly received 74 people, including one child and one woman who suffered critical injuries. Nine people were reported as missing following the blast, reported the NYC Mayor's office.

Rescue workers used back hoes and a bulldozer to search for any victims still buried in the rubble, although efforts were hampered by smouldering pockets of fire and a sinkhole caused by

a water main break beneath the rubble.

Thermal imaging cameras were also employed to identify heat spots that could either indicate bodies or pockets of fire.

De Blasio said there was limited warning to organise an evacuation, as the blast came only 20 minutes after city authorities were alerted to the gas leak.

"This is a tragedy of the worst kind because there was no indication in time to save people," he said.

The explosion blew out windows in surrounding buildings and sent a hail of

► ocean waves receded. Many found their houses and livelihoods in ruins.

More than 2 600 homes were damaged and fishing boats along the northern coast were smashed up. However, most infrastructure in the quake-hit regions held up and the mining operations were generally functioning normally, reported Chilean officials.

The 8,2 earthquake in April followed another quake, only a few weeks prior, on 16 March, when a 6,7-magnitude earthquake shook Chile's northern Pacific shore.

More than 100 000 were evacuated in the March incident as a precaution.

Tsunami alert

Chile's National Emergency Office asked residents in the coastal areas of the country to evacuate with the tsunami threat that followed the 8,2 magnitude earthquake in April.

While the government said it had no reports of significant damage to coastal areas, a number of homes were reportedly destroyed in Chile's northernmost city, Arica.

Evacuations were also ordered in Peru, where two-metre waves above normal forced about 200 people to leave the seaside town of Boca del Rio near the Chilean border, reported Chilean officials.

Chile is one of the most seismically active countries in the world.

The country is on the so-called 'Ring of Fire', an arc of volcanoes and fault lines circling the Pacific Basin that is prone to frequent earthquakes and volcanic eruptions. ▲

Next generation of aviation fire fighters enter service

Airservices Australia, a government corporation providing air traffic management and related airside services, welcomed 24 aviation rescue fire fighters (ARFF) into service in April this year.

The newly recruited ARFF personnel were welcomed in a graduation ceremony held at the Airservices Learning Academy at Melbourne Airport.

The graduating recruits joined more than 800 Airservices fire fighters at Australia's busiest airports.

The recruits completed a physically and mentally demanding 11-week training course at Airservices Learning Academy in Melbourne. Theoretical and practical training undertaken included fighting simulated aircraft and structural fires, aviation rescue techniques and dealing with the hazards of highly flammable aviation fuels.

Aviation fire fighter, Daniel Spring, from Coffs Harbour was presented with the Silver Axe Award for the most outstanding recruit of the course and will now join the ARFF service at Alice Springs.



Twenty-four new ARFF personnel graduated from Airservice Learning Academy in April

Airservices executive general manager ARFF, Michelle Bennetts, said the new recruits will work at ARFF stations across the country including Brisbane, Perth and Sydney.

"Airservices has one of the largest, most highly trained, professional aviation rescue fire fighting services in the world," stated Bennetts. "Our fire fighters have the expertise to provide Australian airports and airline passengers with first-rate rescue and fire fighting services."

Airservices Learning Academy general manager, Linda Spurr, congratulated the graduates on successfully completing the demanding training course. "The new recruits have tested and demonstrated their skills and abilities through our state-of-the-art fire training ground," said Spurr.

"Over the last seven years we have trained and developed nearly 350 new fire fighters and are continuing to witness the significant benefits of the 'true to life' hot fire training facility in Melbourne, which we opened a year ago." ▲

debris onto neighbouring streets. Many were trapped in the cars and apartments in the immediate aftermath of the disaster.

A resident in one of the destroyed buildings said tenants had complained to the landlord about the unbearable smell of gas fumes a day prior to the explosion and that fire officials were called to the building weeks ago when the odour was particularly pungent, the US Associated Press reports.

In the aftermath of the explosion, the Metro-North railroad suspended service in and out of Grand Central Terminal in downtown Manhattan as a precaution.

Local trains were halted after debris reportedly landed on the tracks roughly nine blocks away from the building collapse. ▲



Fire fighters and rescue workers search for survivors and pockets of fire

Five-alarm fire destroys San Francisco apartments



A high-rise building fire had nearly 150 fire fighters attending the five-alarm blaze

A six-storey apartment building went up in flames in San Francisco in the US in a five-alarm fire that required the attendance of nearly 150 fire fighters on 11 March 2014.

Air ambulance explosion in Colombia

At least six people died aboard an air ambulance that exploded when it was about to land at the Villavicencio airport in Meta, a central province in Colombia in March this year.

According to the director of Civil Aviation in Meta, Cesar Robayo, the aircraft had taken off from Bogota and was heading for Aracacuara, a small jungle enclave between the southern provinces of Caqueta and Amazonas.

Colombian Civil Aeronautics has confirmed the Beechcraft King Air 90 was travelling between Bogota and the Caqueta region. The aircraft had departed very early in the morning from Bogota and the crash occurred about 06h35.

Robayo told local media in Meta that a mechanical failure was reported and the pilot asked permission to land the plane on a runway at the Vanguardia airport in Meta. The plane crashed about one kilometre from the runway, exploding without any survivors.

The air ambulance had at least six people aboard including two pilots, medical staff, a patient and family member, according to reports from Colombia media.

Authorities were still investigating the cause of the plane crash and whether there were more passengers on the aircraft. 🔥

The largely wood-frame building in Mission Bay, a residential neighbourhood in San Francisco, California, was under construction when it caught fire, prompting the evacuation of nearby buildings. One building across from the fire was evacuated because windows were breaking from the heat.

San Francisco fire chief, Joanne Hayes-White, fire fighters aggressively attacked the flames, keeping the blaze from spreading to other buildings, although the fire burned for several hours.

Hayes-White said the building's sprinkler system was not yet installed. "We are in a defensive mode," she said.

While battling to control the high-level response fire, the Mission Bay fire fighters decided to pull back from the fire due to concerns about a collapse. Hayes-White said the possibility for collapse was very likely and that fire fighters set up a perimeter around the expected collapse zone.

Hayes-White was pleased that fire fighters have been able to prevent the flames from spreading to nearby buildings after the fire was contained to the building of origin. "This is a great save right here," she said.

One fire fighter was taken to the hospital to be treated for a minor burn. No other injuries were reported.

Pet care organisation, Animal Care and Control, arrived on scene to help to help with displaced pets. The Salvation Army and American Red Cross also sent teams to assist displaced residents and first responders.

The Salvation Army assisted those affected by the fire, opening up a disaster services canteen that included a mobile kitchen to serve an estimated 100 fire fighters, police officers and other volunteers working to extinguish the fire.

A second Salvation Army canteen was placed at another site to serve a further 20 volunteers, as well as about 30 residents who remained evacuated from nearby buildings.

According to reports, the construction of the high-rise Mission Bay apartment building would not have been permitted in California just a few years ago.

Until 2008, buildings six stories or higher were required to have 'noncombustible' exterior walls - typically, concrete and steel studs - from top to bottom. ⚠️

Cyclone Lusi underwhelms in New Zealand

A tropical cyclone threatened to bring widespread flooding and chaos in many parts of New Zealand in March this year.

Rain struck northern parts of the country and winds strengthened, flattening power lines in Kaeo township and toppling a tree in Parahaki in the city of Whangarei, New Zealand.

The Meteorological Service of New Zealand (Met Service) reported that wind gusts of around 130 kilometres an hour were recorded at Cape Reinga, on the northwest tip of the North Island. The Auckland metropolis, also located on the North Island, experienced wind gusts of almost 90 kilometres an hour.

Category three Cyclone Lusi promised to bring much welcomed rainfall to the country but met with frustration from New Zealand farmers who badly needed the rains for their crops.

Flood warnings were in place for the South Island amid heavy rainfalls in the North Island as the depression moved south. However, the Cyclone passed through the south-western Pacific Nation without significant event and circumstance.

"It definitely turned into a wind event primarily, although there was some localised flooding in the Coromandel, but nothing beyond what they handle fairly regularly," said Waikato civil defence emergency management group controller, Lee Hazlewood.

He added, "The rainfall was a blessing but I think everyone would have liked a lot more, particularly in central areas."

Emergency preparation

Lusi was expected to bring flooding, slips, road closures and power cuts southwest of the country.

In Kerikeri, the largest town in Northland New Zealand, emergency back-up to support in the form of 26 fire fighters and five fire engines were deployed before the storm hit.

Residents in at-risk coastal areas have been told it's a case of 'neighbour helping neighbour' to ensure safety.

Severe weather warnings were issued for Northland, Auckland, Coromandel Peninsula, Bay of Plenty, Gisborne, Nelson and Marlborough.

Canterbury braced itself for flooding and the Christchurch City Council prepared for the worst case scenario following recent damaging floods in the area.

Around 22 000 filled sandbags were made available by Canterbury officials for collection in various locations across the city and all emergency response teams were on standby. ⚠



Cyclone Lusi caused surface flooding in parts of New Zealand's South Island

However, this proved to be nothing more than precautionary flood mitigation measures.

Meanwhile the South Pacific island nation of Vanuatu, suffered 10 deaths in March after Cyclone Lusi hit the island, which is in relatively close proximity to New Zealand.

The UN Office for the Coordination of Humanitarian Affairs said Cyclone Lusi caused widespread flooding and damaged crops in Vanuatu.

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Series of earthquakes in California, US



An earthquake caused a rockslide that caused a car to overturn in Orange County, California

A series of earthquakes struck California in the US, in March this year, the first being a 4.4-magnitude earthquake that shook the Los Angeles area on 18 March, jolting many awake just before sunrise, although there were no reports of serious damage.

The US Geological Survey's online ShakeMap showed that strong to moderate shaking would have been felt near the epicenter, with lighter vibrations felt in Los Angeles.

US geophysicist, Paul Caruso, said that significant damage or casualties

generally wouldn't be expected with earthquakes weaker than a 5.5 magnitude, though results vary by region, often depending on construction codes and types of rock that exist underground.

At least six aftershocks followed the quake, the strongest of which was a magnitude 2.7, according to Egill Hauksson, a California Institute of Technology seismologist.

Another earthquake again struck the Los Angeles almost two weeks after the first incident. A magnitude 5.1 earthquake struck Los Angeles

on 28 March, jolting nearby communities and breaking water mains in some neighbourhoods, according to US reports.

The temblor displaced at least 50 people eight kilometres from the epicenter, because of minor damage to homes and apartment dwellings, according to California-Fullerton police lieutenant, Mike Chlebowski.

The quake also shook items off tables, rattled chandeliers and resulted in scattered damage to cars and property, including setting off a rockslide in the Orange County city of Brea that flipped a car on its roof.

More than 100 aftershocks continued to rattle Southern California a day after the earthquake on 28 March.

Police and local fire departments assessed affected areas and found no damage or significant injuries, according to emergency officials in California.

Southern California has experienced relatively minor tremors since 1994 when a magnitude-6.7 quake killed dozens and caused \$42 billion in damage. It now stands as the second-costliest disaster in US history, after Hurricane Katrina. ▲

Fire leads to biggest drug bust of year

A fire at a drug laboratory in Gauteng, South Africa, led to the seizure of three tons of the sedative-hypnotic drug, Mandrax, by the South African Police Service (SAPS) in Gauteng, on 23 March this year.

Labelled as one of the biggest drug busts of the year, police and fire fighters responded to the scene after reports of a fire that is suspected to have been started by an explosion at a drug lab in Benoni on the East Rand.

The Mandrax, which had a street value of about R2 billion, was discovered on

a plot in Crystal Park after a fire broke out on a plot in the Benoni suburb.

A neighbour at the property apparently saw smoke emanating from the house and alerted authorities.

When the fire department arrived at the house the entrance to the plot was locked and fire fighters had to force it open.

"Four people were seen running away from the premises after the gate was opened," said SAPS Captain, Mack Mngomezulu.

Fire fighters put out the fire and found a lab that was used to manufacture drugs. "We suspect that an explosion was the cause of the fire. In the garage there was a mixing machine, chemicals, and substances to make drugs," said Mngomezulu.

A thick layer of raw drugs was left to dry on a tennis court at the property.

A case of manufacturing drugs was being investigated by police. ▲

Fire fighting quad-bikes for slums in Kenya

In March this year, the Nairobi County Government in Kenya unveiled 12 mini fire engines that will be used to battle infernos in east African country's informal settlements.

The fire engines, the size of quad bikes, have the capability of navigating through slums (informal settlements) that conventional fire engines find difficult accessing.

"We will no longer have problems accessing the slums. These engines will be able to navigate through to put out fires that have been a major challenge to us in the informal sectors," said Nairobi governor, Evans Kidero, who launched the mini engines in the Kibera slum in Nairobi.

The mini fire engines were acquired following complaints from slum dwellers that experience numerous

fire incidents, leading to loss of lives and property. "These mini fire engines have adjustable parts that can be adjusted to enable them to penetrate the target areas during emergency situations," said Kidero.

The Nairobi Fire Department has often faced criticism for failing to put out fires on time, particularly in slums and other areas with no access roads.

In most cases, fire fighters have faced the wrath of angry mobs that in past have destroy their vehicles, while baying for their blood and accusing them of being inefficient.

"Not any more... we now have the capacity to fight fire anywhere, at any time," said Kidero.

The new vehicles will replace fire brigade trucks that are slow in



Quad bikes will be used as fire engines in Nairobi's Kibera slums

extinguishing fires in slums, because of inability to pass through narrow roads. Quad bikes will come in handy in places where normal sized vehicles cannot access during fire breakouts.

Kidero explained that the four-wheeled mini fire engines have adjustable parts that can be manipulated in order to penetrate confined spaces and potentially save lives. 🔥

Aviation authority investigates crash fatality of aerobatic pilot

A full investigation is underway into the cause of the airplane crash that resulted in the death of renowned aerobatic pilot, Glen Dell, in October last year, says the South Africa Civil Aviation Authority (SACAA).

Dell's aircraft crashed at the Secunda Airshow held in Mpumalanga Province, South Africa, on 12 October 2013 and friends and family have blamed the fire department for his death.

Hannes van Heerden, chairman of the Secunda Flying Club, which organised the airshow, said all the emergency plans for the show were up to date and on standard.

"We used Sasol's fire brigade because they are one of the best and has won many awards," he said.

SACAA spokesperson, Phindiwe Gwebu, told a local news organisation that an investigation into 'a severe crash' of this sort, where there had been a fatality, could take between six months and a year.

She said the CAA would await autopsy results, which would form an integral part of the investigation.

Sasol Group communications general manager, Jacqui O'Sullivan, said, "From time to time, Sasol's emergency services are requested by the local authorities or local event organisers, to assist with community events.

"While the investigations by the appropriate authorities are still underway, Sasol can confirm that all necessary protocols were followed as per the agreed upon emergency response plan.



"Sasol does, however, strongly deny claims that the emergency crew were delayed in responding to the crash.

"Sasol will do all it can to cooperate with the investigation into this tragic accident." ⚠️

Consolidation year for the Centrum Guardian Project



The Centrum Guardian Project has become a much-anticipated annual campaign since its inception in 2008, featuring a television series that recognises the selfless service that the people in the emergency and rescue services industry demonstrate every day.

The project has profiled 49 finalists across various disciplines of the emergency and rescue services industry over the past six years – highlighting incidents of courage, passion and determination.

In its seventh year, the Centrum Guardian Project will embark on a profile-raising campaign with the aim of exposing the initiative to a greater audience, according to Centrum brand manager, Natasha MacDonald.

According to the latest research done by marketing experts, 11 million South Africans are online. To this end, Centrum Guardian Project will embark on an impactful online and digital campaign to capture this audience.

MacDonald says that the 2014 Centrum Guardian project will be a consolidation season in which Centrum will share the inspiring stories of the past few years and reach more people through a greater investment into mainstream media. “We want to expose more people to these wonderful stories of courage, bravery and tenacity and increase the reach of the project,” states MacDonald.

This year’s campaign will feature the existing television footage from the past four years. The material will be reedited to into three-minute episodes and flighted across various TV channels.

Additionally, these short episodes will be included on the existing Centrum online channels.

MacDonald says that the television campaign will take place during July and August this year. It will be flighted at different times and sequences and complemented by an online or social media campaign

Nominations remain open for 2014/2015 and next year’s Centrum Guardian campaign will feature emergency and rescue incidents dating back to January 2013.

MacDonald says, “Nominations that have come in to date will be considered for the 2015 campaign. Nominations can be submitted for incidents that took place from 1 January 2013 to 1 April 2015.”

All nominations received to date will be carried over into the judging for the 2015 campaign. Nomination forms can be downloaded from the website www.centrumguardian.com.

“2014/2015 will see exciting changes that will ensure the project is taken to new heights with even more opportunities to tell the stories of courage, passion and determination that we receive,” says MacDonald. ▲

Triage tagging system developer passes

One of the earliest certified paramedics in Miami, US, Mark Bonawitz, who developed the triage system of colour-coded tags that prioritised treatment in emergency situations, died of lung cancer 2 March this year. He was 74.

The triage tagging system became a nationwide programme in the 1908’s and is being implemented by emergency medical practitioners around the world today.

Bonawitz spent a decade as one of Miami’s earliest certified paramedics when he realised that scenes of mass casualties needed to be handled with precision to maximise the saving of lives.

Bonawitz, who joined the Miami Fire Department in 1967, helped design and implement the mass casualty triage tagging system that became a nationwide program in the US in the 1980s. It meant that emergency personnel now had a system to prioritise treatment for multiple victims through color-coded tags when time is of the essence.

Bonawitz retired from the Miami Fire Department in 1991 and began to devote time to The South Broward Elks Lodge. He became active with the Florida Elks Children’s Therapy Services as a state representative; assisting kids with muscular diseases learn to walk through physical therapy and braces. ▲

Coal fire emits toxic smoke in Australian city

A fire at an open-cut coal mine in Australia burned for a month in February

A fire raged out of control for nearly a month at a giant open-cut mine in Morwell, a city in east Victoria, Australia, during the month of February this year.

The fire at the Hazelwood Coal Mine dumped toxic smoke over the 12 000 residents of Morwell, forcing many to flee their homes.

The fire was eventually brought under control following a 29-day battle by fire personnel from Country Fire Authority (CFA), the fire service that provides fire fighting and other emergency services to all of the country areas and regional townships within the state of Victoria.

As the fire persisted for close to four weeks, vulnerable residents in Morwell South were urged to relocate temporarily, as thick clouds blanketed parts of the city.

Helicopters were used to drop water on the fire, while ground forces use sprinklers and master streams from fire engines.

Compressed air foam was used successfully by the CFA, after Class A foam was used at the onset. A Tasmanian crew smothered the fire with thick foam to help reduce the amount of smoke affecting Morwell.

CFA personnel also used an airborne heat-detecting infrared line scanner to fly over the fire to produce a map showing fire fighters the hotspots.


Eighteen fire fighters were taken to hospital because of their exposure to carbon monoxide (CO).

It is believed the fire started when two bush fires burned close to the mine and spotted into the coal. The suspected cause of at least one of the fires was arson.

CFA incident controller, John Hayes, expected the fire to take a long time before being extinguished, owing to the coal content. "The main thing we're trying to do is stop the smoke and get the community back to some level of normality," said Hayes, during the month-long operation.

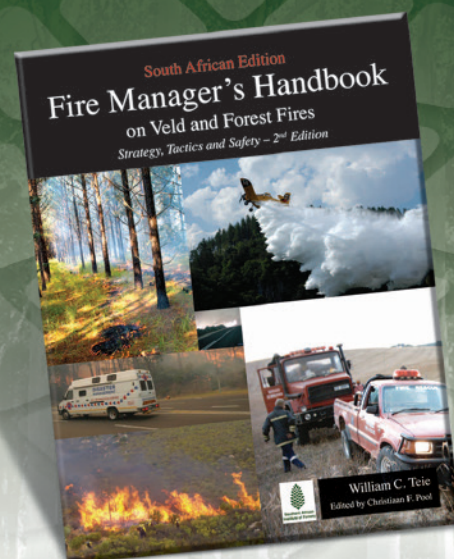
More than 200 fire fighters worked around the clock on the fire per shift.

The cost of extinguishing the fire was estimated to run into the millions of dollars, according to Fire Services commissioner, Craig Lapsley.

"It's one of the most significant fires we've had in the state that's seen multiagency national response," said Lapsley. "It's a multimillion dollar fire without a doubt." 

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California highway crash claims six lives



Local authorities said Culbreath was traveling north in the southbound lanes of State Route 57 before transitioning east in the westbound lanes of State Route 60, where the Camaro collided head-on with a red Ford Explorer. A Ford Freestyle then collided with the Explorer.

Culbreath was convicted of drunken driving when she was 17 years old, according to Department of Motor Vehicle records cited by the Los Angeles Times.

Four people were pronounced dead at the scene and two people died after being taken to the hospital, Jimenez said.

Witnesses told dispatchers the Camaro was speeding up to 160 kilometres per hour, Jimenez said.

Culbreath was in a serious condition at a medical centre in Los Angeles, with a broken femur and a ruptured bladder.

The westbound lanes of State Route 60 were closed for about eight hours as investigators sifted through the wreckage. **▲**

A highway vehicle accident claimed six lives after a suspected drunk driver travelled the wrong way on a freeway in a suburb east of Los Angeles in California, US, in February this year.

of Pomona, causing a predawn crash. She was arrested on suspicion of driving under the influence and manslaughter after being pulled from a badly mangled Chevy Camaro, according to California highway patrol officer, Rodrigo Jimenez.

The suspected drunk driver, Olivia Culbreath, sped the wrong way on the Southern California freeway in the suburb

Three people were ejected from their cars and the Camaro was barely recognisable, said Jimenez.

Death toll rises in Ugandan boat accident

More than a hundred people died after a boat capsized in a lake along the border of Uganda and the Democratic Republic of Congo (DRC) on 22 March.

Ugandan police spokesperson, Patrick Onyango, said that 107 bodies were recovered by 24 March, most of whom were children.

Police estimate that about 150 people were on the boat and they did not expect any more survivors. Onyango said that at least 45 survivors were rescued as divers combed the area.

Albertine regional police commander, Charles Sebambulidde,

said that just about every person on the boat was accounted for after two days of search and rescue efforts.

He said that rescuers could not rule out any more bodies being found since the working number of those on board was an estimate.

The boat carrying mostly Congolese refugees tipped over in Lake Albert, which is about 160 kilometres long and 30 kilometres wide in the Albertine Rift, which covers parts of Uganda, the DRC, Rwanda, Tanzania and Burundi.

The boat began its journey at the northern end of the lake and was heading south to

a landing site on the Ugandan shoreline when it ran into trouble.

Overloaded boats are a common factor in similar tragedies in the east African country.

Popular with local traders and fishermen, boats that are often flimsy and overloaded criss-cross the lake that links the towns and villages on the shoreline.

Accidents are relatively common on Uganda's lakes, which include Lake Victoria and Lake Edward, due to overloading, lack of maintenance and lax enforcement of safety standards. **▲**



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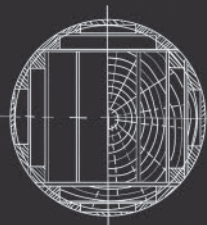


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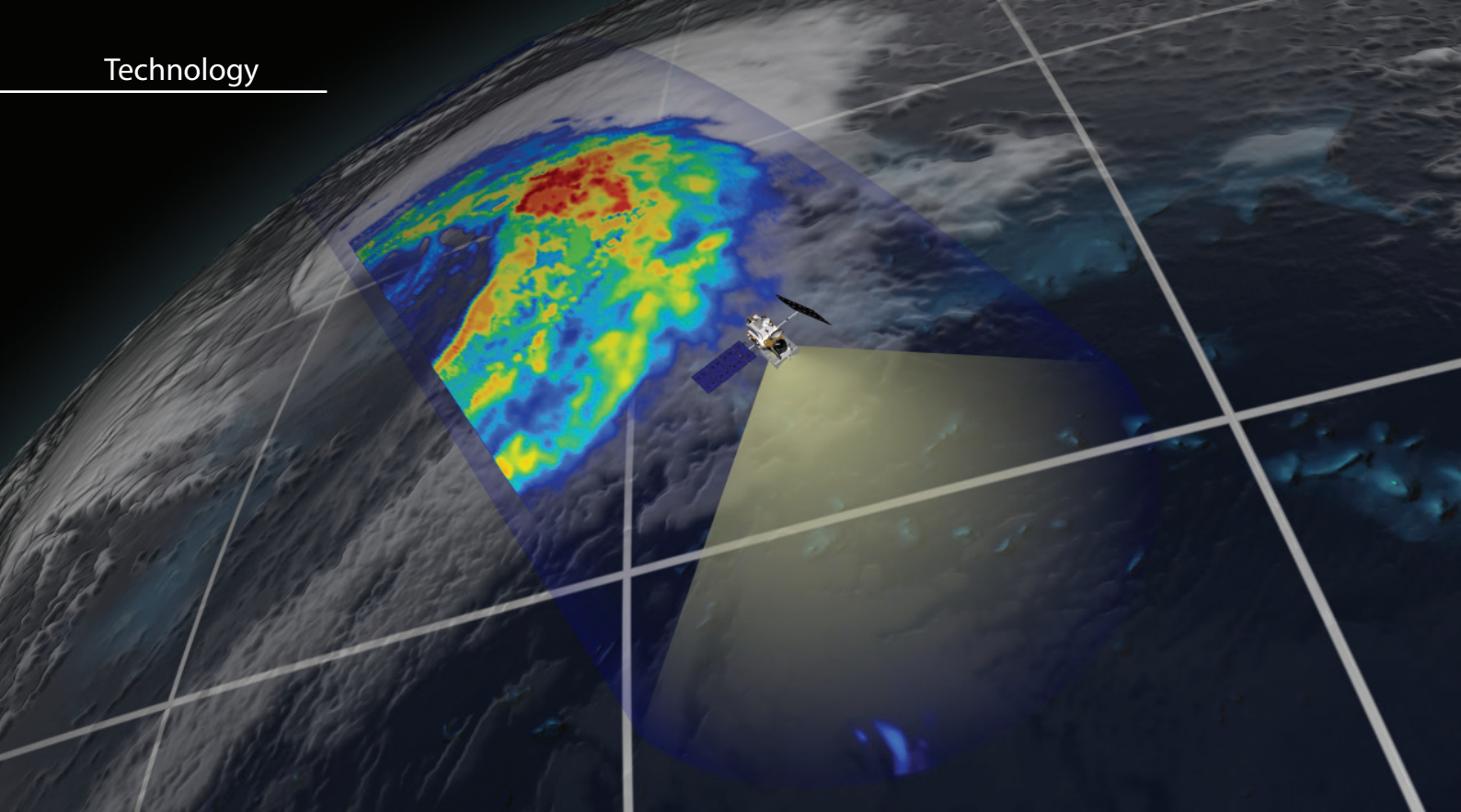
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Newly launched NASA satellite provides planetary view

National Aeronautical and Space Administration (NASA) Earth Observatory, which explores the causes and effects of climatic and environmental change through the use of real satellite data, launched a new Global Precipitation Mission (GPM) satellite on 27 February 2014.

NASA Earth Observatory scientists seek to fully understanding the role of rainfall in the global water cycles and the new GPM satellite captures data with a planetary view that will assist in learning more about the role of tropical rainfall in Earth's water and energy cycles, reports NASA.

The GPM satellite follows the launch of the Tropical Rainfall Measuring Mission (TRMM) by NASA and the Japan Aerospace Exploration Agency (JAXA) in 1997, which formed part of NASA's tropical rainfall studies.

Scientists wanted observations to improve their understanding of atmospheric circulation, one of Earth's most important mechanisms

for distributing energy from the sun-drenched tropics to Earth's poles.

The TRMM provides important insights into tropical rainfall but to fully understand the role of rainfall in the global water cycle, scientists need a planetary view that would now be provided by the newly launched GPM satellite.

The GPM satellite flies in an orbit that takes it from 65 degrees north to 65 degrees south; an area that includes the data provided by the TRMM satellite, which orbits from 35 degrees north to 35 degrees south.

The orbit of the GPM allows the satellite to measure precipitation, including both rain and snow across the planet. The view expands measurements of precipitation to include population centres in the Northern Hemisphere, meaning GPM can be used to study extreme events in these locations.

Like TRMM, the GPM satellite carries precipitation radar, dual-frequency precipitation radar and a microwave

radiometer, but also expands on the type of precipitation measurements.

Scientists also will get a global view of precipitation including the polar regions, by using GPM to calibrate observations from other satellites.

While TRMM's suite of instruments is optimised to measure moderate and heavy rain, they miss lighter rain and snow, two important components of the water cycle.

The GPM instruments will measure all types of precipitation, observations that will help scientists better understand variability in the water cycle and the availability of fresh water; improve both weather and climate models and improve hydrological models that help predict disasters like floods, droughts, hurricanes and landslides.

On 4 March, the satellite's microwave radiometer started collecting data on rain and snowfall. Measurements made since then indicate that the instrument and satellite platform are working well. ▲

Major infrastructure developments planned for Delmas



The Victor Khanye Fire and Rescue Service operates in the Mpumalanga Highveld with its compact urban settlement

The Victor Khanye Fire and Rescue Service in Mpumalanga Province, South Africa, serves an area spanning 2 740 square kilometres, that includes the farming town of Delmas, located 71 kilometres east of Johannesburg.

The fire service also has the Botleng Township, with an adjoining informal settlement on the outskirts of Delmas, as well as four smaller rural communities and its surrounding agricultural areas.

The Victor Khanye Local Municipality is situated on the Mpumalanga Highveld and consists mostly of agricultural development and grass veld.

As such, the regional fire service has a compact urban settlement making up 15 percent of the area and a mining area making up another 15 percent of the municipality's geographical expanse.

Victor Khanye Local Municipality chief fire officer (CFO), Frans Bolton says, "In winter, the agricultural areas can very quickly turn into a fire nightmare, especially when the August windy season commences." In 2001, the Victor Khanye municipality adopted a no-border stance, enabling

the fire service to service outerlying areas of Delmas including Botleng, Eloff and Sundra communities.

"It was therefore easy for this service when the new demarcation brought these areas into the municipal jurisdiction, as the communities out there were already benefitting from the fire department," says Chief Bolton.

The municipality's area falls within the economic hub of Gauteng and is centred between major cities, including Johannesburg, Tshwane, Springs and Secunda.

Chief Bolton says that routes between these hubs converge at Delmas and include the N12 freeway, which forms part of the Maputo Corridor.

The Victor Khanye Fire and Rescue Service is currently situated at the region's municipal offices, where it has been located since the 1970's.

History

Established in 1953, the Victor Khanye Fire and Rescue Service was first administered by traffic officers at the municipality as a joint traffic, fire and ambulance function.

During this time, the service only had a very old Bedford medium pumper and an FMC F250 small pumper that responded to incidents exclusively in the town of Delmas.

The municipality appointed its first CFO, Gys Taute, in 1986 who served the region for 14 years before resigning from his post in December 2000. ▶



Chief fire officer, Frans Bolton



Station officer, Collin Masilela

- ▶ A restructuring of Delmas emergency services in 1998, resulted in a split between the ambulance and fire service function and only three dedicated fire fighters remained.

The ambulance service relocated to the Bernice Samuel Hospital in Delmas with 14 emergency services personnel who were previously in a dual ambulance and fire service function.

Following Taute's resignation as Delmas fire chief in 2000, the fire service did not have an official CFO until the appointment of Chief Bolton in 2006.

Chief Bolton first served as a senior fire fighter and station officer, before being appointed as CFO. He took up the role as CFO after proving his worth during the management of a major fire incident at a shopping complex in Delmas in 2006.

Risk profile

The Victor Khanye municipality is currently experiencing an increase in growth and calculable risks, such as the planned build of new shopping centres and mines, as well as a new hospital that is in discussion phase.

The development of an international airport in the municipality is also creating business interest within the area, with two large hotels and casinos being in developmental stage.

The fire service also works closely with a fertiliser factory just outside of Delmas, as well as an explosives factory adjacent to this, which recently expanded its operations to include a new mixing facility that is four times the size of the existing plant.

"This factory primarily produces explosives for the mining industry and the fertiliser plant provides 60 percent of its net product in the form of ammonium nitrate kernels. There is also a 1 000 ton ammonia reservoir on this site. The raw ammonia products are delivered via rail tankers," explains Chief Bolton.

He adds, "The mining activity is mostly open-cast mining and creates its own

unique risks. Within the mines the risks are mostly limited to landslides and rock falls and the accompanied fires. However, the largest risk from this sector is the transportation of coal from the mines to the wide range of power stations around Delmas."

National power utility, Eskom's new Kusile Power Station, which is 15 kilometres from the longer-standing Kendall Power Station in the Nkangala District of Mpumalanga, also falls within the jurisdiction of the Victor Khanye Fire and Rescue Service.

Eskom have their own fire service on the site, but Chief Bolton works closely with the power utility to ensure safety precautions and standards are met.

Chief Boltontsays that road infrastructure that is poorly maintained presents a large risk for the fire service. "With the increased coal transportation and the goods transportation between major hubs, causes that there is a continuous threat of serious vehicle collisions."

A recent vehicle count in February 2014, showed that 2 225 vehicles an hour passed through an intersection in the Delmas region. This count was done outside peak times and on the second week of that month, reports Chief Bolton.

He says that annual grass fires count as a residual risk, adding that the winter season particularly adds to the strain on the fire service, owing to numerous uncontrolled fires.

"We were fortunate in the past few seasons not to have serious fires as most fires are managed before it grows too fast, all thanks to the fire protection association (FPA) members who are proactive within their areas.

"In order to manage the risks and to reduce the effects or shortcomings of the service, we are focusing on fire prevention in order to manage the inherent fire risks," says Chief Bolton.

Operations

There are a total of 15 fire personnel at the Victor Khanye Fire and Rescue Service that has Chief Bolton at the helm and station officer, Collin Masilela, acting as the second-in-command.



Fire personnel, Tshepo Mohwadiba, Tshepo Matlabjane and Collins Masilela

The service has one senior fire fighter in Tshepo Mohwadiba and eight subordinate fire fighters. There are four control room operators at the station who work in tandem with the fire fighters in a four-day and 12-hour shift cycle.

Fire personnel are all trained to the basic level of fire fighter one and two, hazmat awareness and operations, with some completing pump operator training, says Chief Bolton.

He says that the station officer is a qualified hazmat technician, with additional training in basic and advanced fire origin and cause.

Chief Bolton is the only ambulance emergency assistant (EMT-I) and qualified medical practitioner within the service. He has gained experience in fire investigation, although he is yet to obtain accreditation in this field.

He says, "Due to the limited personnel on shift, the services of hazmat spillage clean-up services are called upon during large spills to assist with the remediation processes. The lesser incidents are managed by the fire fighters.

"The most common incidents the service responds to are vehicle collisions, informal dwelling fires and wildfires. In a lesser extent, heavy goods vehicle fires, where the wheels ignite, mainly due to binding brake linings or bearing seizures," explains Chief Bolton.

He says that the shortfalls of the station are mainly personnel, as opposed to equipment.

Major incidents

In 1992, an ammonia-laden truck from the Omnia Plant in Delmas was stolen and overturned in the middle of a residential area, causing an ammonia release.

The fire department managed to stop a serious incident with quick actions, although the driver was not so fortunate, says Chief Bolton.

In 1995, a goods train derailed near Arbor, a rural train station within the municipal area. This caused a major route in the region; the R555 and the rail line to be closed for

twelve days, owing to repairs and environmental rehabilitation.

"In 2006, our biggest incident in terms of fire incidents was the Shoprite complex fire. The assistance of Witbank, Middelburg and Etwatwa fire departments was required and the fire was brought under control within four-and-a-half hours after it was reported, with a 65 percent loss on the complex," reports Chief Bolton.

He says that the cause was determined as being an overloaded electrical extension cord that was covered by paper stacks at a furniture store, which is where the fire originated.

"A contributing factor to the spread of the fire was that the centre was built prior to 1973 and the application of the building regulations was not enforced by then, thus the ceiling void of the centre was not compartmentalised," explains Chief Bolton.

Equipment

Recent additions to the fire services' response fleet include a rural pumper, a response vehicle, a hazmat trailer, a fire tanker, two additional grassfire skid units and a medium pumper.

Other vehicles in the fire service fleet include a 1993 GMC light pumper, which is currently being repaired after damage in a fire incident. There is also a 2010 Nissan UD fire tanker that is used as a support



Control room operator, Elvis Bhuda

vehicle for the provision of water at large incidents.

The fire service has three grassfire response vehicles – one Ford ranger and two Toyota Land Cruisers – that is used as a utility vehicle and wildfire response vehicles, respectively.

Asked to describe the ultimate vehicle design for the service, Chief Bolton says that it would most probably be an appliance that serves multiple functions, including patient transportation.

"Our challenge is that ambulance services are few and far apart within ►



Victory Khanye fire services control room

► our area. We sometimes wait up to forty minutes for an ambulance to arrive at accident scenes. Having space on an appliance where patient stabilisation can be attended to until an ambulance arrives is important and in severe cases, even transports the patients to hospital as an option," envisages Chief Bolton.

He says that a vehicle with sufficient locker space for equipment is also on his wish list, as is a suitable turntable ladder that does not compromise water reserves and equipment space.

Recruitment

The Victor Khanye Local Municipality manages the appointment of fire personnel under its policies, however, this system is being revisited to ensure compliance with the National Fire Protection Association (NFPA) 1582 of the US.

Chief Bolton says, "On entry level applications, volunteers fire fighters have the opportunity to start their career path within the fire services with a solid base already developed."

Currently, there are four female fire personnel employed at the Victor Khanye Fire and Rescue Service, with two being control room operators and two serving as fire fighters.

The fire fighter complement is divided into shifts with two members and one

control room operator per shift and the two officers working office hours and standby after hours.

"The senior fire fighter is currently on one shift, making that shift a bit stronger than the other three shifts, in terms of fire personnel," says Chief Bolton. "We do not have sufficient staff at the service and need additional staff to be able to have enough fire fighters to ensure that there is a minimum level of response staff on the appliances per incident."

Fire safety

Chief Bolton says that the fire department is proactive in its awareness program on fire prevention adding that the target has been primary schools where there is a wealth of eager learners. "They still absorb the information and relay it to their households."

Chief Bolton says that another future roll out planned for implementation after the 2014 grassfire season is a house-to-house awareness initiative within the informal settlements and rural communities. This is expected to increase knowledge and awareness towards the dangers of both dwelling fires, medical emergencies related to fires and wildfires.

The fire service also works closely with commerce and industries to ensure that they comply with regulations in an attempt to prevent fires from starting in the first place.

Interagency involvement

The fire service has an open relationship with both the Nkangala District Disaster Management Centre, as well as the Provincial Disaster Management Centre, notes Chief Bolton, who represents the municipality and the fire service on both the District and Provincial Disaster Advisory forums.

He says that the relationship between the local FPA (Delmas FPA) is growing.

As the regional chief protection officer, Chief Bolton is actively involved in the FPA and offers guidance and support to the farmers as needed.

He also utilises the community protection forums of the police (CPF's) to talk to the farmers on matters related to the FPA's business and trends that are identified, in terms of grass fires.

Owing to time constraints, Chief Bolton says that the relationship with the Mpumalanga Umbrella FPA (MUFPA) has room for improvement. However, information sharing with the UFA is ongoing to ensure that the service and the FPA is not left behind.

Challenges faced

The biggest challenge faced by the service is the financial strain on rendering a professional service with a very limited budget, notes Chief Bolton.

He adds, "Another increasing challenge we face is the deterioration of the roads, due to the increase in road transport through the area. This causes delays in response and unwanted wear and tear on the vehicles."

On the upside, Chief Bolton says that the Victor Khanye Fire and Rescue Service receives assistance from the Nkangala District Municipality in the form of vehicles and equipment.

The fire chief counts this as a blessing and vital cog in the wheel that enables a better service offering to the Delmas community and its surrounds. ▲



Nissan UD series fire tanker

Aspiring preacher to capable fire chief

Chief fire officer of the Victor Khanye Fire and Rescue Service, Frans Bolton, had envisioned his place at the pulpit to serve as a preacher, but after a lack of finances disrupted his theology studies, the amiable fire chief opted to save lives.

Not a wholly dissimilar to saving souls as a preacher, Chief Bolton says that saving 'earthen' lives has been a proven to be entirely satisfying and an honourable profession.

The fire chief has racked up 25 years' worth of experience in the emergency services field in both the fire and medical disciplines, after beginning his career in 1990 as a volunteer at the Delmas Fire Station.

Prior to this, he had joined the South African First Aid League at the Delmas Railway in 1989 as a teenager, where he progressed to instructor level by 1991.

As a first generation fire fighter, Chief Bolton drew from his seniors within the fire service; his biggest mentor being, Gys Taute, who is the former chief fire officer of Delmas fire Station.

"Chief Taute was a near perfectionist and he gave me the motivation to push harder and be smarter. He also showed me that to help others in a time of need was a calling and not something learned," says Chief Bolton.

The camaraderie displayed by fire fighters and station officers was appealing and made an indelible impression on Chief Bolton in the early years of his career.

Aspirations

Stepping into the role of fire chief was a journey that took many years to realise. Chief Bolton only began seeing himself in this position after more than a decade of being in the fire service.

"I think the point at which I realised that I want to grow into the position of chief fire officer was during an interview process in Delmas for a



station officer position in 2002, when a certain councillor on the interview panel said to me that I am 'too young and small to be a fire chief'.

This prejudice was the motivating factor that inspired Chief Bolton to work harder to achieve the heights he has attained as the current fire chief of the Victory Khanye Local Municipality.

He says that being able to make a difference in the community has been the biggest motivation in his career. "My passion is to ensure the safety of the community and I will fight for this to remain a priority as far as it is humanly possible," states the fire chief.

Chief Bolton thrives in the role as fire chief and says that he gains a great amount of satisfaction and pride in being able to perform tasks in the fire industry, which ultimately leads to saving lives either, directly or indirectly.

"There is no money in the world that can replace that feeling," he says.

Leadership

Chief Bolton sees value in creating an environment that enables his subordinates to take initiative and be accountable for their actions.

He says that at less serious incidents when fire personnel are called out,

he has the senior members of staff manage the scene, while he acts as incident commander. "I encourage them to think for themselves and I only intervene when there is a risk of escalation of the incident."

"I have an open door management style at the station," says Chief Bolton.

The fire chief takes note of suggestions made by his complement of fire fighters, although he maintains that his ruling or decision is final and at the end of the day personnel respect this stance.

For aspirant fire fighters looking to step into the role of chief fire officer, Chief Bolton says that they would have to be emotionally ready for the task.

"This can be achieved by being the lesser person and possessing certain characters traits including honesty, integrity and selflessness," he says.

Chief Bolton, "Being the fire chief is extra hard work. You are required to always be available and being there for the members below you whilst still having the authority to command."

In conclusion, Chief Bolton says that a fire chief must be a rock that must at all times be consistent and have the safety of the community he serves at heart. ▲

Structural collapse: voids and void exploration

By Colin Deiner, Chief Director, Disaster Management and Fire Brigade Services, Western Cape Government



Working in collapse voids is quite possibly one of the dangerous and most taxing activities that any rescuer can perform

As fire and rescue services, we don't have to deal with building collapses often. When we do have to respond to such incidents, we must realise that we are entering a dangerous environment that will test our skills and training to its limits.

Why do buildings collapse?

Buildings collapse for a variety of reasons, the cause of the collapse will generally dictate the shape that the structure assumes once it has settled. The prime reason structures collapse is due to a loss of stability. This happens when the shape and integrity of the structure is impacted upon by a specific force or a combination of forces. The structure is

not able to withstand these forces and will change its shape and integrity until it finds a shape that is more stable.

Buildings generally collapse for more than one reason. A building with a structural deficiency might be involved in a fire, which will further weaken that deficiency and then cause a collapse. A solid building involved in an earthquake might suffer severe structural damage but still maintain its shape. Heavy machinery working close by, post-earthquake might compromise these weaknesses and cause a secondary collapse.

Let's examine the causes of structural collapse in more detail.

Fire

A building fully involved in a fire is subjected to extremely high temperatures that cause expansion on certain elements as well as the failure of supporting structures. This will weaken floors and roof structures. Supporting walls could be forced out of shape by expanding steel beams thereby creating numerous collapse risks. The application of large volumes of water will increase the imposed load on an upper floor causing it to fail. It is important for fire fighting crews to anticipate the possible collapse zones and ensure that they are clearly indicated to all personnel on scene.

Geological effects

Earthquakes and landslides cause structural collapse due to the movement of the earth in which the foundations are laid. The movement can be either horizontal or vertical and exceeds the ability of the building to withstand the stresses imposed on it. A situation may also arise where the ground on which a building is constructed, becomes so saturated with subterranean water that it loses all integrity causing total collapse. This situation known as liquefaction is the most common cause of collapse of structures near a coast line during an earthquake. The 1999 Marmara earthquake in Turkey suffered a number of these collapses along the inland coastal areas around the cities of Cinarcik and Yalova. Due to the total failure of any supporting base, these structures tend to collapse completely.

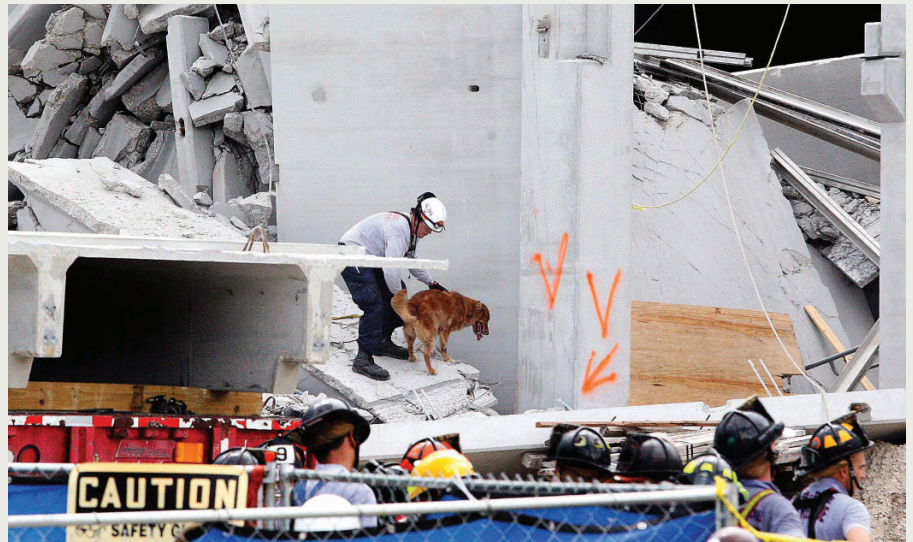
Extreme weather

Regions that experience high wind speeds are susceptible to buildings being affected. Conditions such as high winds do not normally cause buildings to collapse completely but can cause roofs to be blown off, walls to collapse due to suction on the leeward side and excessive pressure created inside the structure. The failure of one building component may of course lead to a total failure.

Heavy rainfalls and flooding could cause a build-up of water within a building space, which could also place pressure on the structural elements and present a stability risk. Although South Africa has a mild temperature and does not experience heavy snowfalls as often as countries in the northern hemisphere, the possibility of an added load on a horizontal surface caused by excessive snow must be considered in such events.

Structural defects

Unfortunately, we have too often had to respond to structural collapse that has happened due to poor design, workmanship or the use of inferior materials. In some of these cases, contractors are in a hurry to finish a particular project and do not allow sufficient time for concrete slabs to set properly before removing stabilising struts. This is known as 'green concrete' but could also be called



Dogs are able to cover a large area quickly

'green concrete' and is generally characterised by the slab punching through its supporting pillars and crashing to the floor below, then possibly causing multiple floors to collapse in a 'pancake' configuration.

Explosions

These collapses are all 'man-induced' but can be categorised as either accidental or intentional. Accidental explosions are caused by factors like leaking gas that ignite and cause an over pressurisation in a building or the effects of a fire. A rapid introduction of air into a severely compromised, heavily involved building could cause a backdraught causing a collapse. Similarly, a dust explosion or detonation of highly volatile products stored within a building space could lead to a catastrophic failure.

Recent intentional collapse incidents have been the result of terrorism. We are all familiar with the bombing of the Murrah Building in Oklahoma City, the 911 incidents and the very recent shopping mall incident in Kenya. Although the 911 incidents were caused by large passenger aircraft flying into buildings, other incidents are generally caused by explosives being detonated inside or alongside a (normally occupied) structure. An explosive detonated inside a structure creates a shockwave of air that usually displaces the doors, windows, roofs and floor and can cause additional damage to other structural elements.

An exterior detonated explosion will have an amplified shockwave (due

to its unconfined nature) that will penetrate the building through its natural openings. Walls and roofs will be subjected to great pressure. The shockwave could also propel debris at a high velocity, which can impact against the structural components causing a collapse.

Some of the main risks here are the possibility of secondary collapse due to the compromised nature of the building that also has to deal with a shifted, imposed load and the location of victims which could be some distance away from the initial impact.

Transportation emergencies

Many incidents have occurred where an aircraft, road vehicle or train, has collided with a building or structure resulting in a partial or total collapse. The severity of the collapse will be dependent on the size and purpose of the vehicle as well as its purpose.

I have only dealt with collapses of occupied structures but we must also plan and prepare for the collapse risk of other structures such as bridges, tunnels, leisure facilities and piers. Temporary structures such as scaffolding, cranes and temporary stands at sporting and cultural events could also cause the entrapment of people and require the same kind of response as required for an occupied building collapse.

How do buildings collapse?

When a building collapses the altered shape which it ultimately assumes, will be in a number of generic patterns. These patterns can be internal, external or total collapse. ►

► Internal collapse patterns can be any of the following four:

Pancake collapse: These happen when the load bearing walls fail causing floors to impact suddenly on the floors below. This will assume a stack up configuration in the shape of a heap of pancakes. This is a particularly catastrophic type of collapse and generally very few voids remain after the collapsed floors have settled. These voids can be shaped by machinery, appliances or furniture that interrupts the stacking effect. A pancake collapse is the most complex type and will require extensive searching procedures and prolonged debris removal operations.

Lean-to collapse: This occurs after a failure of a supporting wall, beam or column at one end fails and causes the floor to tilt down causing a triangular shaped collapse void. In these types of collapses, large voids are formed that allow for increased possibilities of survival of any victims.

Lean-to collapses can either be supported or unsupported. A supported lean-to collapse is formed when the collapsed end of the floor comes to rest on top of debris, furniture, machinery or the next floor. Thus, both ends of the floor are supported.

An unsupported lean-to collapse happens the same way as the supported lean-to however in this case the failed end hangs suspended

with no support and is held together by reinforcing and other binding elements keeping it in one piece.

This is an extremely hazardous environment for people to work around and plans must be put in place to stabilise these precariously hanging structures before any search and rescue work can be done.

'V' collapse: This is caused when a heavy load at any given point, normally towards the middle of an upper floor, causes the floor to collapse creating two triangular voids.

These voids will form on both sides of the load failure that will mean that victims could be found over a larger area. Victims on the top of the collapsed floor will be propelled down in the direction of the load that caused the collapse. They may be trapped by huge amounts of debris that will require the use of a wide range of cutting and breaching tools to extricate them.

A-frame collapse: This is the opposite of a 'V' collapse and is caused by the separation of exterior walls while still being supported on the inside by one or more interior load bearing walls or non-load bearing structures. This can be caused by explosions, earthquakes (liquefaction), the excavation of adjoining areas or extreme water damage. The best chance of finding survivors will be close to the partition

wall near the centre of the collapse. The further away from the interior wall the less chance you will have of finding survivors.

Exterior collapses can occur in five different ways:

90° angle collapse: This is when a wall falls outwards to a distance that is equal to its height, causing debris to spread as it hits the ground. This is a particular risk at a structural fire in a large commercial or industrial facility when it is difficult to judge the collapse zone. As with the 'pancake' collapse, above voids will only be formed by elements that will be in the collapse zone.

Curtain fall collapse: This happens when a wall collapses straight down and creates a rubble pile near its base. Virtually no voids will exist following a curtain wall collapse.

Inward/outward collapse: Occurs when walls crack on a horizontal line around its centre line. The top half falls in one direction (usually inwards) and the lower half in another (outwards).

Total collapse: This is the most severe form of structural failure and occurs when all the floors have collapsed to the ground or basement level and all walls have collapsed onto the floors.

Basement collapse: This is rare and happens when a ground floor collapses into a basement while the other floors remain intact. If the ground floor is a shop front, it could cause the floors above to tilt in a forward direction leaving it very unstable. Searching for victims in the basement is extremely difficult. During the 2003 Algerian earthquake, the South African urban search and rescue (USAR) team were faced with such a challenge. One of the biggest of these being the establishment of an access point from the basement into the upper floors of the unstable structure. Another important consideration was to ensure the monitoring of the building stability and progressive stabilisation that accompanied this process.

Managing the incident

In previous articles, I have dealt with the broad response to structural collapse incidents. Here, I will narrow it down to the identification, exploration and stabilisation of collapse voids.



Additional space may have to be created to safely move the patient out of the void space

The rescue operation will start with the reconnaissance and initial scene survey. It is here where all possible hazards are identified and isolated, information gathered and determination of resources required is done. The first arriving units will be the fire department, emergency medical services and other public safety authorities.

The need for a specialist urban search and rescue capability (rescue squad or USAR task force), must quickly be identified and they should be activated.

Any utilities that may pose a risk to victims and rescuers must also be isolated and locked out at this stage. This includes electricity, water and gas supplies.

At most structural collapse incidents there will be a percentage of victims who are injured but not trapped or lightly trapped and immediately visible and accessible. These victims can be accessed and extricated by the first arriving units. Personnel directed to perform this activity must move with care to ensure that they do not injure themselves by tripping over unstable debris and also take care that they are not stepping over areas where persons may be trapped and be further compromised.

If any doubt to the stability of the structure exists, incident commanders must not commit personnel into the incident but rather await specialist urban search and rescue intervention.

First responders can also conduct a 'line-and-hail' search that entails a team of rescuers forming a straight line and moving in unison across the collapse sight. When they encounter an opening or potential collapse void, they will then examine the opening and shout down the hole to try and ascertain if someone is trapped there.

Upon completion of this phase, you can move on to deploying search and rescue dogs onto the site. Dogs are able to cover a large area quickly and will allow you to narrow the search down and only concentrate on certain areas. It is critical, however, to realise that the dogs might pick up a scent that is being channelled through a long void. When a scent is picked up and a dog does indicate

the location of a victim, you will need to examine the terrain and evaluate it for its viability. Is there a void? Could a person survive in the void? Is the opening linked to further voids?

After the canine search you can move on to a seismic and acoustic search that will provide a more precise location.

Once the surface search is complete and voids have been identified, the difficult task of entering, stabilising and identifying the collapsed voids will begin.

Void exploration

While the safety concerns are being addressed and the necessary shoring to ensure sustained access is being erected, a void search team should prepare themselves for their task. Depending on the extent of the incident, it may be necessary for multiple teams. Void search teams should be involved in the entry and searching of collapse voids rather than tunnelling into and through debris. Voids are the most viable locations for live victims.

The void search team should be a six-member unit consisting of an officer and five rescuers. This team will be split into an entry team and a support team. The entry team will be responsible for entry into the void space and shoring it. The support team will be responsible for expanding the void and managing the required rescue tools.

Within the void, the team will encounter a large amount of debris in various shapes and positions. Some of this debris is providing natural stabilisation to the void. Before removing any debris, it should be carefully assessed to ensure that it is not holding up any part of the structure. If it must be removed to provide for further access, a supplemental shore should be constructed in its place before removal.

Shoring and stabilising is a very involved job and will require highly trained and experienced rescuers. It might be necessary to cut a large amount of timber and move it into the void. Communication here is of the essence. Measurements taken by the entry team must be clearly

and accurately communicated to the cutting team. A variance of as little as two centimetres could result in the shore having to be sent back and cause a delay that could cost someone's life.

The entry team officer is responsible for safe void exploration operations. He/she must evaluate each phase of the operations and make adjustments as necessary. This person is also in communication with both the entry and the support team and will be crucial in relaying information between them. He/she must also be familiar with the team members and direct their activities according to the incident needs and their abilities. The entry team officer will select the entry routes and determine the procedures and tools that will be used to achieve the decided objectives.

Once a victim is reached he/she needs to be assessed, stabilised and packaged for removal. It may be necessary for additional medical staff to enter the void for these activities. If it is suspected that the patient is suffering from possible crush syndrome injury, it could be an extended period of time before he/she may be removed.

Additional space may have to be created to safely move the patient out of the void space. This should be done using the same approach as the initial entry phase.

Due to the heavy workload and pressure on this team, the void entry team officer must monitor the health and fatigue of the team and rotate when necessary. Rescuers generally become more determined when they are close to the victim and tend to neglect their own physical condition. It is very difficult to replace a rescuer who has got this far, but it is a decision that will have to be made.....and obeyed.

The void entry officer will rely on the entry team for his/her information as they are the first people to enter the void and will be the only ones with 'eyes on' the inside. These rescuers must be comfortable working in confined spaces, able to evaluate associated risks and respond to them. ►

Engineering firm with aviation fire fighting focus



Starting out as a facilities management company, Indiza Airport Management has evolved to capitalise on the opportunities in the fire and aviation industry, ultimately changing its focus to airport management.

Indiza Airport Management director, Riaan Cilliers, says that the organisation, which was formed in 1996 under the auspices of US consulting engineering firm, Black and Veatch, shifted its focus in the latter part of 2000.

The organisation now provides fire training and fire services as part of its airport management offering.

Currently, Indiza has three independent airports under its management, namely Richards Bay Airport, Pietermaritzburg Airport and Virginia Airport, all of which is located in KwaZulu-Natal Province, South Africa.

“Our focus is essentially on second and third-tier airports. We bring expertise from management aspect. It is our core business,” states Cilliers.

He adds, “Because we are a consulting engineering firm, we also have a business development focus on the fire industry.”

Indiza seeks, not only to provide management expertise, but also provide fire services, security and airport traffic control.

Cilliers says the organisation offers a complete management offering that includes day-to-day cleaning services, airport traffic control and fire services.

In terms of fire services, the organisation has established a specialised training academy at Richards Bay Airport, with which it has a 20-year concession agreement.

Training academy

Indiza Fire and Training Services was launched in 2010, when it trained about 50 fire fighter students on various fire fighting disciplines including fire fighter one and two and hazmat, as well as aircraft design and construction.

The latter involved instructional courses on the different types of aircraft and the methods of fighting an aircraft fire, says Cilliers.

Indiza's Fire and Training Academy is accredited with the South Africa Civil Aviation Authority (SACAA), as well as Local Government Sector Training Authority (LGSETA).

Indiza Fire and Training Academy manager, Alan Kukard, says training is offered on the education training and development practices (ETPD) system and makes use of international accredited training material for fire

When debris is identified for removal, it must be moved as far away from the entry route as possible. Ideally, all debris should be removed from the void and placed somewhere outside. In a small void space it might be necessary for loose debris to be passed backwards until it reaches the outside. This might require more people as the distance increases. Each rescuer handling this debris must do so carefully ensuring they do not dislodge any shoring or injure other rescuers.

Any cutting of debris or collapsed structural elements must be done only when absolutely necessary, properly supported and only if a loose end is clearly visible.

The entry team members must always be in verbal contact with each other

and stay in close physical proximity. They must also stay in verbal contact with the entry team officer.

The support team will be responsible for expanding the void if prolonged operations are envisaged. One member should be placed at the mouth of the void and should assist with the removal of the debris and relaying information to incident command. If the void entrance is too narrow and confined they will be responsible for widening this area and establish a better and more sustained space.

The support team must also be able to rapidly enter the void to assist the entry team with victim or debris removal or an emergency rescue of an entry team member. In addition, they will be called on to move any

tools into the void and provide personnel relief to the entry team.

As with any rescue operation, a tool staging area needs to be established close to the entrance and easily accessible. Due to the limited space in the void, all tools must be removed from the void once they have been used.

In conclusion

Working in collapse voids is quite possibly one of the dangerous and most taxing activities that any rescuer can perform. No amount of preparation will be totally sufficient but it is important that rescuers identified for this task are prepared mentally and physically for a prolonged and extremely taxing activity. We are the last line of defence. ▲

fighter one and two and hazmat as part of its training programmes for municipal and industrial personnel.

Aviation courses makes up a separate curriculum in its fire fighting programmes and includes specialised courses, such as export control coordinator (ECC) training and an airport manager course.

Indiza aviation courses:

- Professional aircraft fire fighter (NFPA 1003)
- Practical radiotelephony and airside competency (Partac)
- Aircraft construction (Basic – Cat 1 to 3 airports)
- Aircraft construction (Intermediate – Cat 4 to 6 airports)
- Ramp controller
- Driving on airside
- Pump operator training
- Dangerous goods (Cat 6)
- Fire station officers
- Airport manager course
- Aviation security (outsourced)
- X-Ray interpretation (outsourced)
- Breathing apparatus (SCBA)
- Airport disaster management and preplanning
- Marshalling
- Export control coordinator training
- Forward command post coordinator training
- Basic fire fighting

Growth

“Last year (2013), we realised that we need to shift our focus on purely aviation to focus on broader fire fighter training and attain LGSETA accreditation to allow us to train fire fighters for municipalities,” says Cilliers.

He says that owing to legislative changes in the aviation environment, Indiza changed its focus from providing purely inhouse fire fighter training after discovering a need for fire fighter training at various other airports.

The organisation now offers a range of fire fighter courses and is also looking to offer learnership programmes on behalf of municipalities.

Through learnership programmes proposed by Indiza, fire fighters would be qualified to seek employment with the municipal fire departments upon completion of Indiza’s training

programme. The learnership programmes would also come with an offer of employment, says Cilliers.

Training personnel

The training academy has three assessors and moderators and they are Galieb Witbooi and Rob Wasas, who are contractors, with Kukard leading the ensemble.

Kukard and Wasas coordinate all fire, rescue and hazmat training at the academy, while the areas of aviation security (AVSEC), dangerous goods and X-ray interpretation is conducted by Witbooi.

An additional moderator, chief fire officer of uMhlathuze Municipality, Oscar Ramaboea, is contracted to provided fire fighter one and two and hazmat training, as well as aviation fire fighter course material.

Onsite training

The fire fighter one and two and hazmat programmes are conducted at the training academy in Richards Bay and all other courses can be conducted on site at airports, where equipment and facilities are available for training.

“The Richards Bay training academy has a lecture room, kitchen area and ▶

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Indiza Training Services provides aviation training for second and third tier airports

► ablutions for both male and female students and both are equipped with showers that is used after practical training sessions if necessary," mentions Kukard.

He says the lecture room is a six-by-six metre facility that has the capacity to house a maximum of 14 students at once.

Scope of training

"It is Indiza Fire and Training Services' policy to make training available for the aviation and private sector alike," says Kukard.

"We are committed to providing the highest standard of training in all our courses, for aviation, up to category six airports. We also have memorandum of understanding (MOUs) in place for the use of certain structures, such as a drill tower with other fire services in

Richards Bay, both municipal and the National Port Authority. We have a close working relationship with both institutions," he says.

Currently, Indiza's Fire and Training Academy is conducting training for 16 candidates in fire fighter one and two, with the hazmat instruction to follow.

Kukard says that there are also two driver and pump operator candidates who are currently in training at the Richards Bay academy.

In its external training programmes, Indiza has conducted aviation-related training for the Pietermaritzburg Municipality, as well as for the Eastern Cape Government's Umtata and Bisho Airports.

The organisation was also contracted to provide aviation training for the

uMhlathuze Municipality in Richards Bay and for the Zululand District Municipality, which required aviation municipal fire fighter training at its Ulundi Airport.

Challenges

Kukard says that engaging and making contact with service providers, airports, industrial and municipalities with an offering to provide training for personnel at these organisations is a challenge at this present time. "Due to the economic climate in this country at present, jobs are not easily come by as most businesses are retrenching staff to make ends meet.

"With the above in mind, Indiza Fire and Training Services is currently negotiating with certain Government departments with the expectation of securing financial support, by way of bursaries, for candidates who are or would be interested in following this line of work as a career," says Kukard.

Nothing has come of this initiative at this point. However, Indiza Fire and Training Services has embarked on an intensive marketing campaign in order to create awareness to the opportunities that can be provided in order to assist airports, industrial companies and municipalities that do not have training facilities with overcoming training problems, explains Kukard.

He says Indiza is looking to create opportunities in the future, where successful students would be entered into a database and stand in line to take up jobs at the various sectors of the industry at the completion of their training. ▲



Indiza Airport Management launched its training services in 2010

NMMU George Campus prepares fire managers to effectively manage wildfires

The focused programme offerings in natural resource management at the George Campus of Nelson Mandela Metropolitan University (NMMU) was bolstered with the introduction of a Higher Certificate programme in Veldfire Management at the beginning of the current 2014 academic year.

The Veldfire Management programme (one year full-time or two years part-time) slots in perfectly with the other programme offerings within the School of Natural Resource Management at NMMU George Campus, one of four schools within NMMU's Faculty of Science and involves both core and elective modules that will prepare fire managers throughout sub-Saharan Africa to effectively manage wildfires.

Tiaan Pool, academic programme coordinator for forestry and veldfire management at NMMU George

Campus, said that the Veldfire Management programme, in short, is geared towards "empowering fire managers to deal with wildfires and the total fire environment to minimise losses caused by unwanted fires – protect, prevent and suppress are the key concepts".

What do wildfire managers do?

According to Pool, students are equipped with knowledge and managerial skills that are especially suitable for a career in natural resource management, allowing them to specialise in wildfire management.

"Students will learn how to manage fire resources, vegetation and human activities in the natural environment in such a way that nature, human life and assets will be protected from fire and unwanted fires can be prevented and/or suppressed to curb fire impact and cost," said Pool.



The Veldfire Management programme draws from various short learning programmes and modules from other natural resource management programmes, as well as the forestry, conservation and even agriculture industries and is therefore specifically designed to address the needs of the southern Africa wildfire manager. ▶

George Campus Saasveld



Nelson Mandela Metropolitan University (George Campus) focuses on becoming a world-class knowledge catalyst for the green economy and a more sustainable future and plan to realise this through cutting edge research and engagement, quality teaching and learning; as well as competitive innovation and entrepreneurship.

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The George Campus is a firm favourite as it is well-known for its natural setting; as well as its close collaboration with the respective industries. Practical excursions and assignments in the beautiful surroundings are prominent features of the programme offerings that ensure the best possible exposure to the various industries and its practices.

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► **Pool highlighted some of the exit level outcomes of the programme:**

- strategically and effectively assessing and managing the fire environment in order to protect infrastructure, human lives and the biophysical environment;
- using technology, engineering concepts and infrastructure effectively for veldfire management;
- integrating relevant activities with existing fire management systems in a region and demonstrating an understanding of applicable legislation relevant to wildfire management.

Students' perspective

Navashni Govender, a programme manager for fire ecology and biogeochemistry for South African National Parks and one of fourteen part-time students registered for Veldfire Management, summed up her involvement thus far by saying that

it is inspiring to be part of the first intake of students in this new programme.

"Very often fire is described as a 'useful servant but a bad master' and I see this programme as an opportunity to train the new generation of fire managers to use fire more effectively, safely and efficiently in managing our fire prone landscape in South Africa, thereby encouraging the use of good fires to prevent bad fires," said Govender.

"I thought that I knew everything about fires that I need to know, but this course is proof that I was totally wrong. I never fully understood fires until this course started to open up this exciting science to me. My recommendation to everyone who wants to become a fire manager is to take this course. This qualification is not about the cost involved to get yet another qualification, but money and time spent to make

a real difference," advised Ian Bezuidenhout of Fire Services Knysna.

Eric Fredericks, also from Fire Services, views this exciting qualification as being essential to the development of his career. "I am beginning to understand what a wildfire is really about. I cannot wait to learn more!" he enthused.

"The understanding of the dynamics involved in wildfire or any fire is crucial for any fire manager to make split-second decisions. It is not only the behaviour of fire that predicts the outcomes of a fire but also the understanding of all the laws and act that govern it. When you strike that match, you are 100 percent committed and liable", asserts Komatiland Forests' Stiaan Marais. This sentiment is echoed by Annalize van Wyk, fire risk officer from Komatiland Forests who emphasised that the course underlines the "... importance of understanding the imperative role of a fire manager."



The first group of students enrolled for the Higher Certificate in Veldfire Management introduced at NMMU's George Campus were enthralled with how the programme deepened their insights and knowledge of wildfires and the management thereof

Why red fire engines?

By Lenny Naidoo

The most widely-accepted reason that fire engines are painted red dates back to the 1800s, a time when there was a lot of competition between the fire brigades of neighbouring cities and towns. The fire fighters of each brigade took great pride in their pump. Each brigade wanted their rig to stand out by being the cleanest, having the most brass or being a regal colour. Because red was the most expensive colour, that's what colour most crews chose to paint the pump.

Other sources cite the tradition of painting fire engines red going back to the early 1920s. Henry Ford wanted to make cars as inexpensively as possible and only offered cars in one colour: black. With all of these black vehicles on the road, the fire service began painting their vehicles red in an effort to stand out.

Today, just as you have many more choices of colours available to you for your vehicle, so do the fire engine manufacturers and it is not uncommon to see white, yellow, blue, orange, green or even black fire engines, in addition to red. And while some studies hint that



Red is still the colour instantly recognised by everyone as that of a fire engine

colours such as lime-green may be more visible to the public than traditional red, the vast majority of fire departments continue to use red fire engines; a colour instantly recognised by everyone as that of a fire engine.

eThekwini Fire Service in the Durban Metropolitan area was probably the first fire service in South Africa to acquire a lime green ladder pumper in the 1990s. 🔥



eThekwini Fire Service's lime green ladder pumper

"The HCVM takes you to the roots of wildfire and exposes the 'bolts and nuts' of being a wildfire manager. This is an excellent course and I strongly recommend it to every manager who is challenged with wildfire management," said Japie Hendricks of the Southern Cape Fire Protection Association.

"Simply mind blowing!" This is the verdict of Elvis Masoka, fire fighter for the Eden District Municipality in describing his experience of this captivating programme.

Nozipho Mkhize, a fire fighting instructor at Working on Fire Mpumalanga is equally upbeat about how the

knowledge gleaned through this interesting programme will contribute to career success. "I am already in a position to plan better and make better decisions when suppressing wildfires," said Mkhize..

Julanden van Wyk of Working on Fire also expressed a sense of real appreciation of how the course equips even seasoned fire fighters with the knowledge and skills to "...appreciate what is necessary to prepare for extreme fires." "This course has opened my eyes and showed the depths of fire management to me. I simply cannot see how organisations that deal with wildfires and the urban interface

situation can improve if they don't enrol for this course," he concluded.

2014 NMMU/SAIF Fire Management Symposium

The dates for the 10th NMMU/Southern African Institute of Forestry (SAIF) Fire Management Symposium have been set for 9 and 10 September 2014.

The symposium will be presented at NMMU George Campus this year.

Interested parties can contact Sonia Roets for more information at: email: Sonia.Roets@nmmu.ac.za or Tel: 044 801 5091 between 08h00 and 16h00. ⚠️

Heidelberg gains new fire protection association



Suikerbosrand Nature Reserve counts among the most fire prone regions in Heidelberg

A total of 70 000 hectares, including the Suikerbosrand Nature Reserve, makes up the area covered by the newly formed Heidelberg Fire Protection Association (FPA) in Gauteng Province, South Africa.

The Heidelberg rural community, through the respective farmers unions, repeatedly tried to obtain registration from the Department of Agriculture, Forestry and Fisheries (DAFF).



The rocky terrain and 'koppies' in Heidelberg make for difficult fire conditions

The FPA was finally formed in August 2013, after more than three years and numerous attempts to register the FPA for the region, says Heidelberg FPA chairman, Tony Scott.

"Hence, we are currently endeavouring to gain as many members as possible, in order to achieve a financially viable association," says Scott.

The FPA is currently located on the Elands Vlei Game Reserve in Lagerspoort, an agricultural expanse about 10 kilometres from the Heidelberg central business district.

Scott says that the FPA's jurisdiction incorporates the entire Heidelberg region, 50-kilometres southeast of Johannesburg close to the Mpumalanga border.

The fire protection officer (FPO) appointed for the region is Geoff Anslow and he leads a team of section representatives for three sectors in Heidelberg, says Scott.

"The chain of command is that there is a representative in each area, divided into sector one, two and three, as well as the Suikerbosrand Nature Reserve," explains Scott.

The FPA management consists of various executive members, made up of various farmers' union delegates and includes representatives from the Suikerbos Farmers

Union, Groenpoort Farmers Union and the Spaarwater area. The FPA has a secretary in Yvette Pieterse.

The local Lesedi Fire Department provides additional support to the wildland area, by working in tandem with the FPA and landowners and providing support in the event of run-away fires brought on by land management practices, such as conducting fire breaks.

“Controlled burning is reported to the FPO prior to such burning taking place, in order to gain permission,” says Scott.

Fire risk

The close proximity of the N3 highway counts among the more significant fire risks in the region, says Scott.

He says that the Suikerbosrand Nature Reserve is prone to experiencing run-away fires, which spreads into the neighbouring farming areas.

He says that the N3 highway running along the Suikerbosrand Nature Reserve, one of Gauteng's premier ecotourism destinations and the arterial between Johannesburg and Durban, poses 'a major risk' to adjacent land.

In addition, the Ratanda Township south of Heidelberg poses another fire risk. Wildfires that spread to neighbouring farms and plots, are a common occurrence in the area.

Scott says that rocky terrain and small hill uprisings from the veld, otherwise known as 'koppies', make up the typical topography in many parts of the region, making for 'difficult fire fighting' conditions in these areas.

The most fire prone areas are Suikerbosrand Nature Reserve, Lagerspoort and the Heidelberg Kloof area, as well as the local Army shooting range area, states Scott.

Fire incidents

Still a fledgling association, the Heidelberg FPA has only had one fire occurrence since its formation and it is yet to face its fire season.

However, Scott says fires occurrences in the region are commonly caused by public negligence, lack of respect of wind conditions and farmers who burn fire breaks 'without taking proper precautions to ensure fires do not restart after burning'.

Challenges

With only 15 landowner members to the Heidelberg FPA, Scott says that acquiring new members is an existing challenge that the FPA will be focusing on as it seeks to establish itself in the region.

The challenge will be to get people committed to joining the FPA as members, says Scott.

Training of fire fighting teams and acquiring fire-fighting equipment are additional challenges facing the FPA.

The FPA currently relies on landowner members and the municipal fire service to provided fire equipment in the event of fire occurrences in the region.



The formation of the Heidelberg FPA was prompted by an unattended fire at a farm in the region

Scott reiterates that gaining prospective members to commit to the membership fees is 'a great challenge'. “We have a total prospective member base of between 450 and 500 prospective members,” he says.

Heidelberg FPA has recently drawn up its own constitution, which outlines the responsibilities of the association among other issues.

The FPA has now set out as its next task, the recruitment of 'as many members as possible', which will be achieved by getting the representatives in all the sub-areas to do the footwork required. ▲

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Wildfire awareness programmes for children of the Cape Peninsula

By Rob Erasmus, Enviro Wildfire Services



The highlight of the wildfire awareness programme presented at the Newlands Fire Base is getting up close to the UH-1 fire fighting helicopters

While the number of wildfires in the Cape Peninsula in the Western Cape, South Africa, for the 2013/2014 fire season is lower than previous years, the actual reasons have yet to be confirmed.

There is, however, a hypothesis that this is due to a culmination of a number of natural and proactive management factors.

Milder summer weather conditions, a reduction of fuel loads through alien clearing projects, improved circum-peninsula firebreak network, increased landowner preparedness, rapid response by fire fighting agencies, training and equipment provision for local communities and an increased public awareness are believed to be contributing factors towards the reduced number of wildfires for the Cape Peninsula, both in numbers and size of area burnt.

A short term preliminary study undertaken by the author in January 2009 indicated that approximately 30 percent of wildfires in the Cape Peninsula were caused by children.

As has been mentioned in previous articles, identifying the true cause of wildfires plays a crucial role in determining strategies to mitigate such fires being repeated. With the acquiring of the important

factual data in January 2009, the Cape Peninsula Fire Protection Association (CPFPA) entered into an agreement with Enviro Wildfire Services to develop and implement wildfire awareness initiatives for children within the West Ward of the CPFPA, namely the Cape Peninsula, primarily targeting known 'hot-spot' areas.

Following extensive discussions with the CPFPA and the fire manager for the Table Mountain National Park (TMNP), a two-pronged approach was adopted, namely a formal one through the school system and an informal one during weekend and the school holiday periods.

Newlands Fire Base programmes

Using the fire fighting Huey UH-1 helicopters as the draw card, a specific awareness programme was developed for this venue. The 90 minute session targeted local schools but the news soon spread and schools from further afield were accommodated. The popular programme introduces the learners to the TMNP and the role that this organisation plays in managing wildfires within the Cape Peninsula. This is followed by discussing the good and bad points of fire and we acknowledge that not all fire is bad. The importance of fire for the survival of certain Fynbos species is demonstrated in an interactive manner and even children aged five get to understand the concept. The dangers of wildfires, the protective clothing fire fighters wear, the types of hand tools and the communication systems are part of the introduction. This is followed by a visit to the vehicle park to view the various specialised fire fighting vehicles, including the various water tankers, dedicated fire fighting vehicles such as the Mercedes Benz Unimogs and the



Visiting the specialised fire fighting vehicles, such as the Mercedes Benz Unimog



Promoting community responsibility with older children who are members of the Ocean View Junior Fire Fighters Club

Enviro skid units (bakkie sakkies). En route the fire danger index board is also explained to the group.

Following a short break the group is involved in interactive activities, the first using their newly-learnt hand signals to spray water from the bakkie sakkie while the second is the highlight of the outing, namely a visit onto the helipad to get close and personal with the Huey UH-1 fire fighting helicopters. After a "briefing", they are allowed to climb into the passenger area under the watchful eye of the programme presenters. The programme is ended off with a fun-orientated quiz between the children and the adults (teachers and parents) to gauge the amount of information gained.

Ocean View

This area has long been a 'hot spot' for the Cape Peninsula and a concerted effort has been made to work with the community in reducing the number of unwanted wildfires. Excellent assistance from TMNP and the City of Cape Town Biodiversity Branch has seen target hardening around this community by the removal of alien vegetation. An increased firebreak system has also played a part. Visits to both the local primary and high schools are undertaken at the start of each fire season to increase awareness as to the dangers of wildfires. This is done in conjunction with weekend

and school holiday programmes. Such programmes are funded from sponsorship and a portion of the fees received from the groups visiting the Newlands Fire Base. An Ocean View Junior Fire Fighters Club has been established in one of the sectors of Ocean View, with parents and guardians becoming increasingly interested and involved in the activities. Of importance is that the community recently identified and handed the person responsible for starting a wildfire over to the authorities. This was unheard of in the past.

Red Hill informal settlement

Located in the far south of the Cape Peninsula, this somewhat isolated informal settlement has historically borne the brunt of many wildfires that have either originated from, or swept through their impoverished community. Following a risk assessment, invasive alien vegetation was removed, the firebreak was subsequently widened, residents were trained and provided with basic protective clothing and fire fighting equipment and an awareness programme developed for the children. Due to the combined approach the number of fires for this community has decreased dramatically.

The CPFPA and Enviro Wildfire Services acknowledge that the efforts undertaken as mentioned in this article are very much on the



Team-building and determining self-worth is one of the important building blocks of the awareness campaign

small scale when compared to other areas in need of fire awareness in the Western Cape. However, we can say with confidence that an optimistic difference has been made to the communities that have been targeted and we believe that the recipe can be further developed for roll-out to areas further afield on a smaller or bigger scale, depending on the circumstances and funds available. ▲



Increasing fire awareness amongst the children in the Red Hill Informal Settlement. Fires have subsequently decreased dramatically



Fire prevention-related activities provided for the children of the Red Hill Informal Settlement during the summer holidays



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Mamre Type 1 crew leader and team member overseeing a stack burning operation

The integrated fire management programme, Working on Fire (WoF), part of the Department of Environmental Affairs' Expanded Public Works Programme (EPWP), has a total of 201 fire fighting bases in the historically fire-prone regions throughout the South Africa.

The WoF Mamre base is located in the Western Cape, approximately 30 kilometres north of the City of Cape Town.

As with WoF Mamre, each of the 201 bases in the country is under the direction of a base manager who leads a team of 25 qualified fire fighters, who are specially trained to combat wildfires.

WoF Cape Peninsula regional manager, Ray-yaan Majjet, says that WoF Mamre is a newly established base, launched in July 2013 in partnership with the Cape Peninsula Fire Protection Association (CPFFPA) and the Mamre Moravian Church.

The team is based at the Mamre Moravian Church where the Church and their committee offered the use of an old unused school adjacent to the historic church.

The WoF Mamre base manager appointee is Randall Arendse and a crew leader, Quehenn Grootboom, leads the 25-member fire fighter team.



Members of the WoF Mamre fire fighter team

WoF has developed a relationship with a range of local partners and stakeholders with which it implements integrated fire management projects. These partners include land managers and fire protection associations CapeNature, SANParks, Cape Peninsula Fire Protection Association (CPFFPA) and other stakeholders in respective areas.

Majjet says that the role of WoF is to assist the local fire department and the Cape Peninsula Fire Protection Association (CFPA), which acts as a partner to the WoF Mamre base.

Fire awareness projects

"Our aim in the off season would also to reduce fuel loads in the surrounding areas and also do fire awareness in the community," says Majjet.

He adds, "The team has also done numerous fire awareness activities in the surrounding areas in educating the community about the responsible use of fire. They have gone through extensive training over the past year and are geared up and ready for fire."

Majjet says that WoF Mamre has all the necessary fire fighting equipment on site and this includes fire beaters, rake hoes, knap sack sprayers and is fully equipped with personal protection equipment (PPE) 'of a very high standard'.

The base has a Tata fire truck that is capable of carrying a crew of 12 members and is equipped with a pump and 600-litre water tank. Other tools and equipment at the base include chainsaws and brushcutters.

CPFFPA general manager, Pierre Gallagher, says that an area of approximately 250 000 hectares is looked after by the FPA in coordination and partnership with the WoF crews.

"The Mamre WoF team is based within the North Ward of the City of Cape Town but is able to assist across the entire area and assists with fires further up the West Coast within the West Coast District Municipality," says Gallagher.

He says that the most significant fire incident recently attended by the WoF Mamre crew was a fire immediately north of power utility, Eskom's, nuclear plant near Cape Town.

EMS fills private ambulance service gap in North West

Hartbeespoort Emergency Rescue Unit provides a 24-hour ambulance service in a 100-kilometre radius in the Madibeng Local Municipality that includes Brits and Hartbeespoort in the North West Province, South Africa.

The ambulance service was acquired by its current owner, Nico Booysen, in 2001 and is currently resourced with two response vehicles and four ambulance vehicles, thus enabling the emergency medical service (EMS) to respond to multiple incidents in the region simultaneously, states Hartbeespoort Emergency Rescue Unit (HBPT-EMS) marketing manager, Loanne Louw.

Brits has a provincial ambulance service, while Hartbeespoort has the Nuclear Energy Corporation



HBPT-EMS is one of two private ambulances in the Brits-Hartbeespoort region

of South Africa (NECSA) Fire Brigade and Ambulance Service, collectively supplementing the EMS requirements in the region in tandem with HBPT-EMS.

Louw says that the HBPT-EMS is the only service in the Madibeng region with three qualified critical care assistants or paramedics who are able to provide critical care. ▶

WoF Mamre was called in to assist with protecting the boundary of the nuclear power station, says Gallagher.

Most recently, the Mamre team responded to fires in and around the Table Mountain National Park area, mentions Majjet.

Newly established

WoF Communications Officer in the Western Cape, Liesl Brink, says that the WoF Mamre is an extension of the CPFPA, which was established in 2003 and has subsequently extended its boundaries taking over all FPAs within the City of Cape Town (CoCT) Metropolitan.

CPFPA provides fire protection assistance to a vast area in the Western Cape that includes northern suburbs and the Cape Flats, with the patronage of the national WoF programme.

Two WoF teams form part of the CPFPA, namely WoF Helderberg based at Lourensford Estate close to Somerset West and WoF Mamre.

Brink says, "CPFPA offers its members free fire fighting assistance with WoF

resources during fire season and reduced fire risk reduction working costs outside of the fire season.

Community impact

Formed as an EPWP initiative, poverty and income relief in poor communities around the country is a strong focus of the WoF programme.

Majjet says that the programme has benefited the local community by positively stimulating the local economy of the area. "Another benefit to the area would be the multiagency collaboration and resource sharing within the Mamre area," he says.

The team is also actively involved in the community in different projects including community outreach. "Mamre team have cleaned and clothed a homeless person in the aim of restoring human dignity and are still in weekly contact in trying to assure his wellbeing. This is just one example of the positive impact the team has on the community," says Majjet.

WoF Mamre is forging a good relationship with the City of Cape

Town Fire and Rescue Services (CTFRS), which does not have many fire fighting resources located in the north ward of the Metropolitan.

"Our role as WoF would be to assist the local fire department and also the Cape Peninsula Fire Protection Association, who is our partner at this base, as well as the land owners if fires should occur," explains Majjet.

He says that CPFPA members and landowners have increasingly sought the services of WoF Mamre and this has been an indication of the success of the team. 🔥



WoF regional manager: Cape Peninsula, Ray-yaan Majjet; Cape Peninsula FPA GM, Pierre Gallagher and WoF Mamre base manager, Randall Arendse



HBPT-EMS owner, Nico Booyesen

- ▶ Other staff members at HBPT-EMS are all qualified either as ambulance emergency assistants (AEA) or basic ambulance assistants (BAA).

HBPT-EMS has three critical care assistants (CCAs) or paramedics that includes, Nico Booyesen, Jerry Bouwer, who also serves as manager of the organisation and Danie Booyjens.

The rest of the operational staff are either AEA or BAA qualified and registered personnel, making up a complement of 13 operational personnel.

Louw says that there was no other private ambulance service in the Hartbeespoort and Brits area, when the company

was founded. "This left a major gap in service delivery to the ever growing communities in both areas," she says.

Today, the organisation prides itself on providing best care, with patients being transferred to either locally appropriate hospitals or to medical facilities in neighbouring regions, including Johannesburg and Tshwane.

Training college

Louw indicates that HBPT-EMS also has a BAA college namely the North West Private Ambulance Training College.

The training college offers monthly BAA courses to students as a first level course in the emergency care field, which is recognised by the Health Professions Council of South Africa.

The course is presented over three weeks, with examinations being held in the fourth week and includes both theoretical and practical training with the purpose of preparing the student to work in any ambulance service across the country.

Louw says that the course is presented by qualified ambulance emergency assistants with years of experience in the field.

Operations

Each shift at HBPT-EMS comprises two paramedics who respond to emergencies in two 'high-powered' response vehicles.

Each shift is staffed with three ambulance crews, each crew consisting of two members that is managed by a crew senior who also serves as the dispatcher.

A full complement of permanent personnel is employed by HBPT-EMS, which also has volunteer crews that assist on occasion, mentions Louw.

Some of the typical emergency incidents responded to by the emergency service reflect the topography and industry in the region that includes the North West mining industry. "This makes for interesting incidents," says Louw. "We respond to calls of people trapped and injured on mountains and the incidents at the various industries while on duty."

Injuries caused by animals, drowning incidents and medical calls and vehicle accidents are among the range of incidents experienced by HBPT-EMS. "We also have had to deal with a number of airplane accidents due to the two airfields, Brits Flight Training Centre and Brits Flying Club, in our area," says Louw.

Major incidents

The heavy rainfall that hit many parts of the country in March this year resulted in a significant incident in Brits, which had many flooded areas.

Louw says a road was flooded in the De Kroon suburb in Brits, whereupon HBPT-EMS received a call from a learning centre situated next to the river that a car had been swept into the river.

"When our paramedic and crew arrived the car had already disappeared under the water," recalls Louw.

Locals responded to emergency calls from De Kroon and upon responding to the scene, emergency workers found that another vehicle had been swept into the river and that a mother and daughter had been clinging to a tree in the river after they escaped from their car.

Louw explains further, "Investigations led them to where the father and two boys were in the river and calling for help. Our one shift senior, Louis Deysel, waded



Paramedic, Jerry Brouwer and shift senior Louis Deysel, rescued a family from a flooded river in March



HBPT-EMS team includes, Gerhard Fourie, Tersia Pretorius, Jerry Bouwer, Markus Pieterse (volunteer), Louis Deysel, Willie Vivier and Matthew Wood

into the river with a rope tied around him while the paramedic, Jerry Bouwer, anchored the rope on the side."

The HBPT medics managed to rescue the mother, father and daughter from the water while the two boys were rescued by workers of the learning centre.

"We transported all five family members to Brits Medi-Clinic for treatment of minor injuries and shock. The North West police divers were called to assist in finding the first vehicle that was swept away. They found the body of the driver and the vehicle a day after the incident," reports Louw.

Challenges

While HBPT-EMS faces numerous challenges in the region, Louw says these are not unique to the organisation, but are common to the industry.

These challenges include the disregard of road users for ambulances on the road and non-courteous drivers refusing to make way for emergency vehicles.

"Another challenge is false calls made on a regular basis," says Louw. What these callers do not realise is that they put the lives of the responders as well

as other road users in danger when the emergency service responds to a nonexisting call. "Not only that, but the service is then kept busy with a false call when there is someone that might really need their help," states Louw.

The state of the roads is another challenge for any EMS organisation. This is especially a challenge in the

rural and outlying regions of many parts of the country, which has a direct impact on the fleet and its maintenance, states Louw.

In spite of these challenges, Louw says that HBPT-EMS considers it an honour and privilege to serve the community. "Our patients are always our passion," she pledges. ▲



HBPT-EMS administration team members, Loanne Louw, Annelien Henrico, Louis Kruger, Karin Prinsloo and Yolandi Steffen

Public information can save lives!

By Rodney Eksteen, Assistant Director: Fire Brigade Services, Disaster Management and Fire Brigade Services, Western Cape Government

The role of the PIO is to provide information about an incident or operation



about the department and its services. Public education is the development of appropriate fire or life safety behaviours.

The role of the PIO is to provide information about an incident or operation. When possible, the PIO should also use the opportunity to promote the department or provide important fire safety messages. However, the PIO must first provide the basic information about the incident. Many PIOs have lost good opportunities because they focused on 'punting the departments name' rather than providing good public information.

The goals of public information include:

- providing effective communication between the PIO and the public via the news media
- when possible, developing a positive public perception about the fire department
- recognition of the heroes and the personnel who have done the work
- dissemination of important fire and life safety messages.

It is the primary mission of the PIO to ensure these goals are achieved. To meet this mission, the PIO should possess some basic communication skills. First, the PIO must be an effective verbal communicator. This includes the skills to respond to questions with answers that are concise and succinct. Next, the PIO must be able to clarify technical fire department information so that it is easy to understand by the media and the public. The PIO must be able to create and maintain a positive, win-win relationship with the media and operations personnel. Finally, the PIO must be knowledgeable about fire department operations. This is critical to gain credibility with the media and the public.

On-scene information management

As mentioned earlier, the on-scene PIO works under the framework of

The public have a right to know about fire and emergency incidents, what they can do to protect themselves and what the agencies responsible for managing these events are doing to mitigate the crisis. Response agencies in the event of such major incidents need to be prepared to interact with the media at a moment's notice and to provide accurate, relevant and potentially lifesaving information. To meet this need a public information

officer (PIO) can help an organisation to broadcast its message; facilitate better interaction among the media, response agencies and the public and can help put other response officials at ease when dealing with the media.

Dealings with the media should not be haphazard or result in a fleeting attempt to pacify some inquiring news outlet. Giving daily attention to getting out the 'feel-good stories' and allowing the media to feel like partners during life threatening fires and emergencies, help to remove the barriers and improve the service that response agencies provide.

The public information function

Many times there is confusion about public information, public relations and public education. Even though public information may, and should, embody elements of the other two, it is not public relations or public education. Public information is information about an incident or operation. It is generally information that the public wants to know or may need to know as in the case of an evacuation. Public relations support the development of a positive public attitude or opinion



The PIO plays a major role in communicating important fire safety and prevention information to the public

the incident command system. The PIO is directly responsible to the incident commander. In this role, the PIO establishes and maintains the function of on-scene information management. The purpose of the information management is to ensure that timely, accurate information is provided to the media without compromising any operations or the rights of the public.

There are several objectives of on-scene information management:

- Ensure the safety of the media during the emergency operation. While the media should be given free access when appropriate, the PIO must ensure the media is not at risk. Many times this will require restricting access to the scene and then monitoring the media to ensure that policy is not violated.
- Ensure operations are not affected by the media. After life safety, the highest priority of the fire department is to successfully conduct operations at the incident.
- Meet the media's needs for information. The best way to gain cooperation of the media is to treat them as a customer and provide them with the information they require in a timely, reasonable manner. If their needs are being met, they are much more cooperative and are more willing to disseminate the fire department's story of the incident.
- Be proactive with the story and photo/video opportunities. It is the PIO's responsibility to create story opportunities with the information from the incident, especially human-interest stories and stories that praise the fire fighters performance at the incident.
- Ensure all organisational policies are followed during the release of information. Every organisation, regardless of size, should have a policy on the release of information. The PIO must ensure that the information released to the media is in accordance with the necessary policies and the law.

Using the media to educate the public

Public information utilises the local media to inform the public about fires, life threatening situations, services and programmes. However,

it's also an opportunity to get important educational messages out using the media whenever and wherever possible. Though, before this will work the fire and emergency service must build a positive working relationship with the media. Secondly, in order to reduce fires, injuries and improve fire safety etc, a change in the public's behaviours and attitudes is necessary.

In order for behaviour change to occur a person must become aware of the need to change their behaviour and they must develop the intention to do so. Secondly the person must acquire the skills and ability to actually change their behaviour. Thirdly, the desired behaviour must be accepted and welcomed by the community.

Certain principles must be considered when using this strategy:

Principle 1: Determine the motivators. People's decisions are not always rational or fully understood. We can't get to people without identifying what motivates them to care.

Principle 2: Simplify the message to its essentials and hammer it home. Repetition over time reinforces. The moment a programme has stopped, people that have not been totally influenced, will resume previous dangerous behaviour.

Principle 3: Emphasise personal relevance. This is the 'What's in it for me' and must be answered in seven words or less.

Principle 4: Emphasise ease of adoption and social acceptability. Mention simple words like easy. For example 'it's easy and your mom would approve'.

Other important concepts to consider include ensuring local relevance (people are more interested and attentive in what happened in their community; timeliness (capture the teachable moment eg provide prevention information soon after the actual incident); focussing on only one issue at a time ie identify the problem and provide the solution and finally the call to action.



Effective communication between the PIO and the public via the news media

The PIO often plays a major role in communicating important fire safety and prevention information to the public. The US Fire Administrations Fire Spokesperson's Media Guide is a good resource to download on how to make the most of these teachable moments (http://www.usfa.fema.gov/media/media_guide/index.shtm). ▶



The PIO promotes public safety and the fire department

Foolish leadership

By Wayne Bailey



Wayne Bailey

Have you ever noticed or witnessed a foolish leader? As some of my associates say, "You just can't fix stupid."

Have you observed how a leader can be led down the wrong path by those in his or her circle of friends? You've noticed a leader that hangs around individuals you wouldn't trust them dating their child or giving advice to them? Your leader listens to the wrong people? They hang out with others that are not edifying them, but pull

them down in social graces? When things go wrong in a foolish leader's life, they have a need to place the blame. If you continue to blame others for not succeeding, they will never succeed themselves.

A foolish leader is only interested in pay, perks, power and prestige.

One of my favourite quotes is "If a fool and his money are soon parted, why are there so many rich fools"? Aristotle said it this way, "There is a foolish corner in the brain of the wisest man."

Brit Simmons said, "Fools are reactive listeners. They have 'open door' policies and claim to be ever available to answer our questions and concerns. Their feel-good approach to listening rarely leads to substantive learning. We learn very quickly that the orifice of the oracle leader is actually a black hole instead of a source of light."

What traits do you see in a leader that is hanging out with the right people? You see fruit in this person's life. This could be a healthy marriage, great relationship with their kids, good job and some people would say a pillar of the community. When you meet this person, they are refreshing, full of

life and have a contagious laugh. They get things done, weather the hard and rough times, always looking forward and have success in their life. All my life, I've heard definition of success. Just recently, I read; "Success is measured on high you bounce when you hit bottom." People that take the blame and don't blame others are taking responsibility of their life. When you know you did something wrong, learn from it. Leaders that do this, they are constantly leaning from their mistakes and don't mind making decisions.

Will they always be right? No. One thing for sure, a ship is always safe in a harbour but that's not why it was designed. We're the same way. We were designed to live life, make decisions based on the data we have and not stay at home afraid an asteroid may fall on us.

A wise leader always has their employees back and does what's best for them. They usually attract or draw like employees. If you have a foolish work ethic, that's who you will attract. If you have a strong work ethic, guess what, you will attract those to your team.

What draws people to a leader? Some say it's their magnetism. The

► **Methods to communicate the message**

The most common methods that are utilised by the PIO to 'communicate' to the public through the media are: 1) the press release, 2) the media advisory and 3) direct contact.

The press release is used to provide the media with information that is in a ready-to-use news story format. The media advisory is the means used to communicate important information about upcoming department events to the media.

Unlike the press release, the target audience of the media advisory is the media rather than the public. Direct contact is one of the best ways to get information to the media and includes 'on-scene' interviews, radio interviews and news conferences.

Conclusion

The public information officer is vital to maintaining and improving the image of fire and emergency services. The PIO serves as the department's

spokesperson and is responsible for disseminating information to the media at disasters and emergency incidents. The PIO provides fire safety education to the public, promotes public safety and informs stakeholders about the services the department provides. Public information is an integral part of the organisation and the incident management system. Effective communication with the media and the public is crucial to the success of any department or organisation. ⚠

Merriam-Webster Dictionary says magnetism is a "Quality that makes someone able to attract and hold the interest of other people."

I think every leader has a degree of magnetism. This trait doesn't have good or bad traits and is dependent on what the leader does with it. It never remains the same. The Law of Magnetism states that you will attract those who are most like yourself.

Someone that I admire is a guy name T Boone Pickens. He has magnetism that attracts other. His wisdom and attraction from others comes in the forms of 'Booneisms'. Here are some of his food for thought ideas on business; "A plan without action is not a plan. It's a speech." "In a deal between friends, there's no place for a wolverine." "I once told a friend, "This is the kind of market that builds character." He looked at me and said, "If it gets any worse, you'll have more character than Abe Lincoln." "When you blow away the foam, you get down to the real stuff." "When you are young, fitness is a sport. As you grow older, it's a necessity." "If you are going to run with the big dogs, you have to get out from under the porch."

Boone Pickens' views on people. "Show me a good loser and I'll show you a loser." "He throws his money around like 200-pound blocks of cement." "He gets a bang for his buck." "He's as smooth as a stucco bathtub." My favourite, "He could screw up a one-car funeral." "He couldn't find oil if he was standing ankle deep in it." "He couldn't hit the ground with his hat." "He rode up in front of the grandstand and fell off his horse." "He's an 18 karat sap" or "someone we won't be doing deals with." "He's gone to the tall grass" meaning he's gone into hiding. It's difficult to not be drawn to the personality of Boone Pickens. His magnetism has made him millions, if not billions of dollars.

Humble leadership

One of America's greatest college basketball coach John Wooden said to his players, "Talent is God-given. Be humble. Fame is man-given.

Be thankful. Conceit is self-given. Be careful." Humility helps keeps pride from sneaking into your life and making you something you're not. Give credit to others for our successes, remain open to growth as leaders, and honour team members when they excel.

Tobias Fredberg said, "However tempting it may be to assign cultural stereotypes, the truth, at least for the 36 companies we studied, seems to be that higher-ambition CEOs assume personal responsibility when things are bad and they give collective credit when things are good.

These companies exemplify elements of both strong collective and individual leadership. Both, when used in the right situations, are essential for creating economic as well as social value."

Eagles versus turkeys

If you surround yourself with turkeys, you may never get off the ground.

Surround yourself with eagles if you want to own the sky. If you've ever studied the eagle, it's a magnificent bird of prey. When the mother eagle lays her eggs, she watches over them carefully, like a good mother would do. When they hatch into eaglets, they are taken care of, fed, groomed until they become of the age to fly from the nest. We all know people that are still sitting in the nest waiting on mom and dad to take care of them. In the case of the eagle, they make the nest very uncomfortable. They place twigs, thorns and branches in the nest to help assist the eaglet to move over to one side of the nest. In our everyday lives, this could be like your parents charging you rent to live at home, but giving you a curfew to be in by 23h00 when you're 24 years old. Yikes! The eagle knows when it's time to push the eaglets out of the nest.

Do you think there is some anxiety on her behalf to push her young out of a nest from a nest 60 metres above the ground? I'm sure. Once the eaglet have made it out of



the nest, a natural phenomenon happens; the eaglet stretches out their wings and begins to soar.

When they really don't have the hang of flying just yet, mom is close by to sweep under them and bring them back to the nest. You see, trying something and not hitting your goal is not failure if you get up, dust yourself off and try again.

Someone once said "There's people who will knock you down and will try to intimidate you but if you stand back up and dust yourself off they will be the ones being intimidated." The mother eagle works and works until one day, the eaglet soars like their siblings and parents. What the eaglet finds out is the power in its wings. Without taking a huge risk in leaping out of a comfort zone of the nest, they wouldn't know what it would be like to have wings and be an eagle.

The question is, what will you do next in your career or life that would make you open your wings and soar like an eagle?

Take a chance. You never know.

Don't be foolish with your talents as a leader and settle walking around with the yard birds. Get started today using your skills.

Mark Twain said; "I knew a man who grabbed a cat by the tail and learned forty percent more about cats than the man who didn't."

Experience is an awesome thing. 🔥

Fire engineers AGM and conference



IFE top achievers, Maxwell Mqadi and Hugh Brown, with IFE president Andries Ramotso

IFE treasurer and managing director of Protection Projects, Andrew Greig, took the time to acknowledge the newly acquired members of the IFE, as well as the top achievers of the annual IFE examinations for 2013, in which a total of 280 students participated.

There were 120 passing grades in the Level 2 examinations and a further 22 passing grades for Level 3. The top achiever in Level 2 examinations was King Shaka International Airport (ACSA) fire fighter, Maxwell Mqadi and the highest achiever for Level 3 was ER24 emergency medical technician, Hugh Brown. Both Brown and Mqadi attended the IFE conference where they received an honours certificate and trophies in recognition of their respective achievements.

by information technology. It has become easy to communicate and do our work."

A new attitude toward training and management exists and the IFE is among those professional bodies that is developing skills and programmes to keep its members up to date.

The theme of the conference 'Technological innovation in proactive fire protection' had various stakeholders in the fire industry discussing their processes and operations regarding fire protection and technology.

Keynote

Sasol Technology fire and risk specialist, Gert Lubbe, presented the keynote address as part of his presented titled 'Automatic detection and suppression protection for bulk storage depots'.

The Institution of Fire Engineers (IFE) South Africa held its 62nd at the Wanders Club in Johannesburg, South Africa, on 20 February 2014 and Fire and Rescue International was invited to attend the event.

Current IFE president, Andries Ramotso, was chair of the meeting that was also attended by outgoing president, Mark Te Water, currently chief fire officer for eThekweni Municipality's fire services in KwaZulu-Natal Province.

The conference introductory remarks were delivered by the Gauteng Provincial Government chief director of fire and disaster management, Elias Sithole. He said that fire service personnel are in the industry through passion. "This is why I am honoured to be among all of you."

Sithole said that fire engineers were operating in a society that is subject to change. "We are in an age where we are surrounded

Lubbe discussed the range of risks at fuel depots with fires, fuel spillages, security and theft of fuel and worker strikes being the most significant.

He said that corporations like Sasol has reviewed historic catastrophes at fuel storage facilities, such as the massive explosion at the Buncefield fuel depot in the UK in which 20 fuel tanks caught fire, with each holding 11-million litres of fuel.



IFE President, Andries Ramotso



IFE treasurer, Andrew Greig



COGTA's Moses Khangale and IFE president, Andries Ramotso

Lubbe stated that local or municipal authorities should be able to deal with tank fires and this would be done in cooperation with the fuel tank owner.

He highlighted the typical fire protection measures required at fuel depots. This would include fire extinguishers, fixed tank foam pourers, fire hydrants, fire hoses, fire monitors, as well as keeping safe distances and suitable access for fire fighters.

Additional fire protection equipment:

- Fixed foam system
- Bund foam pourers
- Hydro foam monitors
- Foam spray systems
- Fire detection and alarm systems
- Vapour detection
- Modern high volume industry fire tenders

Fuel depots do not depend on external response services, stated Lubbe. He said that minimum equipment and production loss can be achieved if correct fire protection systems are in place.

With this said, there are cost concerns at fuel depot that includes very expensive equipment and life-cycle costs, he noted.

Fire services White Paper

Department of Cooperative Governance and Traditional Affairs fire services coordination senior manager, Moses Khangale, says that the newly drafted fire brigade services White Paper, is in the final stages of development.

He said the biggest challenge in developing the newly proposed White Paper was to define the role

of fire services in the broader social economic status of the country.

"In terms of the National Development Plan (NDP), we are looking at a section in the White Paper to argue that the fire service can contribute to this vision," said Khangale.

He noted that 'massive infrastructure development' is ongoing in the country and this includes new power stations. There is also the Waterberg mine development and the Saldanha Bay industrial development zone in the Western Cape.

"Do we have the capabilities to protect risks associated with fires in this infrastructure? Cabinet needs to apply minds to protect development," stated Khangale.

He noted that the key policy proposals of the revised White Paper is for the repositioning of the fire services into the 21 century with the aim of setting a clear definition of roles of all spheres of Government.

"We are saying that we need a harmonious regulatory framework in fire services. We need to entrench fire safety as a key deliverable in the service."

The draft White Paper was set to be submitted to the Minister for consideration in March 2014. It will then be submitted to Cabinet for approval sometime in the 2014/2015 financial year.

Wellness of fire fighters

Reflection Thought Process Consulting wellness consultant, Cobus Swart,

says that the rate of posttraumatic stress disorder (PTSD) among fire fighters is at 16,5 percent more than in the general population.

Swart said that assisting fire fighters with wellness is becoming very important in his IFE presentation that was titled 'Total wellness of emergency responders'.

He noted that it is a high risk occupation that has seen the industry suffer high divorce and suicide rates. For this reason, it has become necessary to manage PTSD scientifically, explained Swart.

There are many factors that are taken into account when diagnosing PTSD, he said. To this end, a wellness model has been developed by Reflection Thought Process Consulting that assesses and provides a diagnosis on the wellness of a specific fire department.

A stress questionnaire forms part of the assessment, which also looks at fire fighter nutrition, exercise, relationships, cognitive hardiness, physical health and workplace purpose.

Cobus explained that a stress profile is then constructed to indicate the wellbeing of a fire department based on the individual wellbeing of its fire fighters.

According to Swart, a world class fire department is characterised by a constructive culture and an effective health and stress assessment and management.

In conclusion, Swart said that the wellness of emergency responders can be managed and improved ►



Gauteng fire and disaster management director, Elias Sithole



Sasol Technology fire and risk specialist, Gert Lubbe



Wellness consultant, Cobus Swart

► through systemic, holistic and scientific approach. "The prevailing organisational structure impacts on wellness of individual organisational members. Leadership has a significant impact on wellness of emergency responders," he said.

Seven-to-one principle

Fleet solutions provider and auto space conversion company, Vuza Group, product specialist, Chris Lekgetho, discussed the new methodology of saving water in the fire industry using a 'seven-to-one' principle.

Owing to concerns of increasing water scarcity, Vuza Group looked into systems that could provide a solution to reduce water in the process of fighting fires, stated Lekgetho. "We felt obliged as a group to improving technology in emergency medical and fire services," he said.

Vuza Group now partners with French fire apparatus manufacturer, Gimaex, offering a new foam product, One Seven, to the local industry.

According to Lekgetho, One Seven is essentially a fire extinguishing medium that enables minimal water use and fights every type of fire, while also achieving greater fire fighter safety.

The One Seven concept: one drop of water is expanded into seven foam bubbles that ultimately drops the tangible room temperature. In addition, water falls quickly to the ground to prevent vapour effect.

"Fire fighters can access building quickly to fight fires due to foam rapid cooling effect compared to conventional foams," stated Lekgetho.

Fire detection

Fire explosion and process solution company Fike USA general manager, Mac Mottley, discussed visual-based fire detection technology.

Fike USA has developed customised fire detection using detection algorithms for smoke, flame, motion, reflected fire-light sensing.

It is very flexible what we can do with this technology," said Mottley. "The technology system analyses each frame pixel by pixel using digital signal processing (DSP) high and low pass filters for fire detection."

Fike USA secured a contract with South African power utility, Eskom, to equip their coal-fired power station, Arnot, with video, smoke and flame detection technology. The Arnot Power Station project began in December 2012 that will see the station eventually being protected with 370 fire detection cameras.

Mottley says that the benefits of the technology provided by Fike include fast detection, volume detection, large coverage area, cost and post-event construction.

Major hazard installation regulations ERM Southern Africa industrial risk partner, Gary McFadden, says that South Africa does not have land use planning, adding that there are

no clearly defined levels of risks that is either; acceptable, negligible, tolerable or unacceptable risks for major hazard installations (MHIs) in the country.

"Fire and explosions or localised toxic substances kill people en masse. MHI regulations keep public away from hazardous sites," explained McFadden.

He said that while MHI legislation in South Africa is far from perfect, there are regulations in place.

Risk assessment is approved by the Inspectorate Authority and legislation says that this risk assessment is to be made available at a time and place in a manner agreed upon between the parties involved.

The onsite emergency planning is the responsibility of the MHI, while local government is responsible offsite. "Both planning must prevent fire hazards at the site," stated McFadden.

Unfair advantage

Sasol Shared Services senior manager emergency management, Pine Pienaar, who acted as programme director, offered a brief video presentation on modern fire systems that make fire fighting easier in the 21st century.

"My message to you as fire engineers would be to give fire fighters an unfair advantage against fires," said Pienaar. "Today it is easy to look at what is available in the world. Go out



Fike USA GM, Mac Mottley



Sasol Shared Services' manager, Pine Pienaar



Msukaligwa chief fire officer, Jaco Johnstone with Andries Ramotso

Network of welfare programmes initiated by the Salvation Army

The Salvation Army (TSA) in South Africa manages a national network of humanitarian centres with varying focuses, from welfare and social services, to rehabilitation and aid relief programmes.

Founded in 1865 by Englishman William Booth, TSA has spread from London, England to 126 countries worldwide. Today, nearly 150 years later, TSA is recognised throughout the globe, providing a unique blend of evangelism and service to people in more than 120 countries.

The rapid deployment of the first 'Salvationists' was aided by the adoption of a military structure, which today still forms an integral part of the organisational ranking structure globally and in South Africa, where the TSA began its first work in 1883.

The organisation's headquarters is based in Johannesburg, with ministry units in eight provinces across South Africa.

Leadership in the Army is provided by commissioned officers who are recognised ministers of religion, notes TSAs territorial public relations secretary for Johannesburg, Major Carin Holmes.



Major Carin Holmes and Benoni Goodwill Centre manager, Carol Rennie

She says that TSA's evangelistic and social enterprises are maintained, under the authority of a general, by full-time officers and employees, as well as soldiers who give service in their free time.

Disaster response

The principle undertaking of the Salvation Army on a daily basis is to assist the homeless and the poor in a practical way. This includes daily feeding schemes and the distribution of blankets and clothing. ▶

there and find systems to give fire fighters an unfair advantage," he concluded.

IFE closing address

IFE President and Dihlabeng Local Municipality manager for public safety, Andries Ramotso, in the IFE Conference closing address, said that there are a number of challenges in the fire services that offer opportunities to deliver tangible services,

He said that Government is providing opportunities to providing training for fire courses. An example of this is a leadership programme created by

the City of Johannesburg's Emergency Services, whereby IFE students have had the opportunity to work with experienced emergency services personnel to gain practical knowledge and experience in the industry.

Ramotso acknowledged Government's revision of emergency services and encouraged IFE members to work with COGTA, which is unlocking opportunities in fire services at a local, provincial and national Governmental level.

"Fire and rescue must be held accountable by communities that we

are tasked to serve. Leaders should think about overcoming barriers and assist each other," stated Ramotso. ▲



The IFE conference was well attended

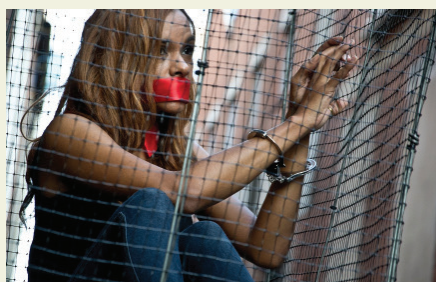


The Salvation Army has low-cost crèches nationwide to assist families in the poorest communities

► Disaster response and relief programmes form part of the operations of the organisation. An example of this is the recent roof collapse at the Tongaat shopping complex in Durban, KwaZulu-Natal, in which one person was killed and 29 others injured.

Major Holmes says that the TSA assembled a disaster team to assist with counselling. She adds, "We have a representative on the national disaster management board. We also have a person in a specific district that puts together a disaster team. We had a team in Durban in the recent building collapse there and they provided counselling for the injured."

"What we do is go and see what is needed, usually other non-governmental organisations (NGOs) also come alongside and help, like Gift of the Givers. What they don't provide and we can, as funding is



Awareness to human trafficking is one of numerous projects started by the Salvation Army

always a problem, we try and meet the need," explains Major Holmes.

Major Holmes says that while TSA has undertaken and adopted a broad range of social and welfare programmes, it remains an evangelical node of the Christian Church, with its core values based on the Bible. "Our ministry is motivated by the love of God. Our mission is to preach the gospel of Jesus Christ and to meet human needs in His name without discrimination," she says.

Major Holmes says that the TSA's diverse programmes are designed to provide a safe haven for the aged, youth and children.

The programmes include rehabilitation of alcohol and drug addicts, TSA hospitals, health care clinics, awareness to human trafficking, child care and Goodwill Centres.

Goodwill centres

Fire and Rescue International was invited to the Benoni Goodwill Centre in the East Rand, where Major Holmes and centre manager Carol Rennie, provided insight into the operations of the facility.

The Benoni Goodwill Centre is one of two centres of its kind in South Africa and run autonomously by the TSA.

There is another centre in Krugersdorp, known as the Family Mission Centre,

where many permanent Disability Grant pensioners find residence. The Goodwill Centres offer affordable services and stability that may be lacking because of the dysfunctional families from which the clients come.

Major Holmes says that because there has not been a Government subsidy for this programme, other centres like Vereeniging had to close.

Rennie says that the service is much valued by the clients, where TSA provides lodging and sustenance to 86 people in Krugersdorp and another 62 people at the Benoni Goodwill Centre.

"If someone came in with a disability then we will accept them. We are a Christian church so our morals are Christian. They go to church with us on Sunday," she says.

The Benoni Goodwill Centre is self-sustaining, which it succeeds in doing by managing two thrift shops in the city. One shop sells furniture and the other clothing.

"If we did not have our shops we would close as well," says Rennie.

The Benoni Goodwill Centre provides food parcels twice-weekly for locals in Benoni and it hosts weekly soup kitchens for the homeless as well. "We also sponsor a crèche in the area that takes in and cares for Aids children and orphans," says Rennie.

The Centre, typically, is a refuge for those who have suffered some form of trauma, drug addicts and even divorcees. "I don't believe that people come here by mistake. They might have been led here by God," Rennie believes.

She says, "There has never been an evening since 1938, where I or Carol had gone into the dining room and said we having nothing to eat or feed. Same as the Goodwill Centre in Krugersdorp."

TSA projects

The number of children, youth and adults dependant on welfare support by the TSA at its social centres in South Africa numbers 8 000.

In line with the policy of the TSA to assist the poorest of the poor, the organisation has established crèches nationwide and endeavoured to keep crèche fees as low as possible.

A total of 1 056 crèches have been established across the country, enabling a safe place for children while their parents find or take up employment. This policy has placed many of the crèches under severe financial strain, reports TSA.

The number of children, youth and adults dependant on welfare support by the TSA at its social centres in South Africa number 8 000, notes Major Holmes.

Other programmes set up by the organisation are services to distressed and abused women. TSA incorporates residential programmes where women with their children are removed from abusive and potentially dangerous situations and offered assistance to rebuild their lives,

The substance dependency rehabilitation programme is another TSA initiative that mainly admits patients from Western, Eastern and Northern Cape.

The programme involves an intensive therapy programme and pastoral programme under the direction of social workers, psychologist, nursing sisters and pastoral counsellors operates at the TSA Treatment Centre.

A twelve-step recovery programme is offered, as well as a marriage reconciliation programme that incorporates wives and families of men who are ready for discharge from the centre. Two cottages are being erected for this purpose.

An additional program to accommodate adolescents, particularly to address the 'Tik' addiction in the Western Cape, was opened in 2006 and is achieving good results, according to the TSA.

The organisation also manages two hospitals, namely the Booth Memorial Hospital and the Mountain View Hospital. The former provides



National soup kitchens are a staple part of the Salvation Army's welfare programmes

intensive rehabilitative therapeutic services to stroke, accident and post-operative patients, as the main thrust of the treatment offered, while the latter is a general hospital, specialising in tuberculosis, maternity care and child health.

A ward to provide palliative care to sufferers of HIV/AIDS was opened at the Booth Memorial Hospital in 2006 and continues to operate at capacity.

Other TSA projects and programmes underway across the country are food distribution services and feeding schemes, care for the aged, men's hostels, residential child care and residential psychiatric care.

Operational efficiency

As an evangelical organisation, TSA embarked on schemes for the social betterment of the poor, operating in practical, skilled and cost-effective ways.

A total of 260 full officers are employed by the TSA to provide ministry and support to the ministries and projects undertaken, with a further 532 employees tasked with varying administrative and operational functions, mentions Major Holmes.

She says that the projects started by the TSA are initiated 'as the need arises'.

"Government may subsidise some of our Children Homes. However, TSA

sources funding to run and maintain our projects," she says.

Major Holmes says that funding remains the biggest challenge facing the organisation to maintain its wide network of social programmes.

Major Holmes says that the public, trusts, foundations and legacies form the principle funding of the TSA. The annual budget of the organisation runs in the region of R100 million, which is primarily generated from 'the goodwill of the public and private organisations'.

"It costs TSA R100 million a year to run the organisation that includes our corps or churches, social centres, head office and district offices of which there are eight in Southern Africa."

TSA South Africa also operates in other African regions namely Swaziland, Namibia and the island of St Helena, mentions Major Holmes.

She says that modern facilities and longer-term development are under continual review. Increasingly the Army's policy and its indigenous membership allow the TSA to cooperate with international relief agencies and Governments alike.

"As long as the public supports the foundation we will keep going. This is what we are about," concludes Major Holmes. ▲

2014

May

4 May 2014

International Firefighters' Day (IFFD)

International Firefighters' Day (IFFD) is a time where the world's community can recognise and honour the sacrifices that firefighters make to ensure that their communities and environment are as safe as possible. It is also a day in which current and past firefighters can be thanked for their contributions.

For more information visit: www.firefightersday.org

5 May 2014

Basic fire fighting module

The basic theory of fire, methods of extinguishment, components, operations and practical use of fire extinguishers and hose reels

Venue: FPASA College, 105 Springbok Road, Bartlett, Boksburg, South Africa

Contact: Christine van der Westhuizen
Tel: 011 397 1618
Email: college@fpasa.co.za

For more information visit: www.fpasa.co.za

6 May 2014

Basic Life Support (BLS) for Healthcare Providers

Participants will be able to perform the initial steps of cardiopulmonary resuscitation in victims of all ages, basic airway manoeuvres and rescue breathing with and without adjuncts

Venue: Action Training Academy, Fourways, South Africa

Contact: Gugulethu More
Tel: 011 450 4981
Email: gugulethu.more@ata-international.com

5 - 9 May 2014

Pacific Northwest Fire Investigation Conference

The theory and practical applications of electricity as it pertains to all facets of fire investigations

For more information visit: www.nwfire.org

5 - 9 May 2014

Fundamentals of fire investigation

The programme will promote a clear understanding of fire investigation and the rendering of opinion regarding origin and cause. It includes practical investigation exercises and the programme is now aligned with NFPA 921

Venue: FPASA College, 105 Springbok Road, Bartlett, Boksburg, South Africa

Contact: Christine van der Westhuizen
Tel: 011 397 1618
Email: college@fpasa.co.za

For more information visit: www.fpasa.co.za

7 - 8 May 2014

Advanced Cardiovascular Life Support (ACLS)

Candidates will be competent to recognise and initiate the management of cardiac arrest and peri-arrest conditions

Venue: Action Training Academy, Fourways, South Africa

Contact: Gugulethu More
Tel: 011 450 4981
Email: gugulethu.more@ata-international.com

9 - 10 May 2014

EDIAFC 87th Annual Conference

This conference covers everything from fire chiefing to traffic incident management

Venue: Evesham Fire-Rescue Marlton, New Jersey, USA

For more information visit: www.ediafc.org

12 - 13 May 2014

Paediatric Advanced Life Support (PALS)

Candidates will be able to perform a systematic approach to the assessment of a seriously ill or injured child, recognise and manage a child in respiratory distress and failure, compensated and hypotensive shock

Venue: Action Training Academy, Fourways, South Africa

Contact: Gugulethu More
Tel: 011 450 4981
Email: gugulethu.more@ata-international.com

12 - 16 May 2014

Fire appliance reconditioning

A course designed to provide learners with a working knowledge of the correct measures to be taken to restore an extinguisher or hose-reel to full operational readiness

Venue: FPASA College, 105 Springbok Road, Bartlett, Boksburg, Gauteng, South Africa

Contact: Christine van der Westhuizen
Tel: 011 397 1618
Email: college@fpasa.co.za

For more information visit: www.fpasa.co.za

12 - 21 May 2014

Quad County Truck Academy

A truck training academy and instruction series covering various aspects of fire fighting including building construction, vertical ventilation, search and rescue, forcible entry, aerial operations and other disciplines

Venue: Eagle Fire Department, Idaho

Contact: Bill Stone
Tel: 001 208 939 6463
Email: bstone@eaglefire.org

13 May 2014

Euralarm Conference

Safe and Secure Solutions for Smarter Cities
The international Euralarm Conference will address how the Fire and Security Industry can contribute to three of the initiatives for "Smarter Cities":

A. Public Emergency Alarm & Response in Crisis situations

B. Fire Safety and Security in Hotels

C. Smart safety and security in cities in 2020

Venue: Juan les Pins, France

Contact: Sophie Zulinski
Email: zulinski@mondial.at

13-16 May 2014

The NAMPO Agricultural Trade Show

The NAMPO Agricultural Trade Show takes place in middle May and lasts four days. Visitors are able to take their time to view all sectors of the show from livestock to computers.

Venue: NAMPO Park, Nampo Street, Bothaville, South Africa

Contact: Mr Wim Venter 0860 047 246
Email: wim@grainsa.co.za

For more information visit: www.nampo.co.za

13 - 15 May 2014

IFSEC South Africa 2014

The largest and most comprehensive range of fire and security solutions all under one roof, with the top specialists in the field.

Venue: Gallagher Convention Centre, Midrand, Johannesburg, South Africa

For more information visit: www.ifsecsa.com

14 May 2014

Fire fighting and evacuation model

The course covers basic theory and practical exercises for the use of portable fire extinguishers and hose-reels on incipient stage fires. It covers duties and responsibilities of fire marshals during an emergency

Venue: FPASA College, 105 Springbok Road, Bartlett, Boksburg, South Africa

Contact: Christine van der Westhuizen
Tel: 011 397 1618
Email: college@fpasa.co.za

For more information visit: www.fpasa.co.za

19 - 20 May 2014

International Trauma Life Support (ITLS)

ITLS courses are designed for providers who are first to evaluate and stabilise the trauma patient. The courses provide complete training in the skills needed for rapid assessment, resuscitation, stabilisation and transportation of trauma patients

Venue: Action Training Academy, Fourways, South Africa

Contact: Gugulethu More
Tel: 011 450 4981
Email: gugulethu.more@ata-international.com

19 - 23 May 2014

Large Wildland Fires: Social, Political & Ecological Effects

International Association of Wildland Fire and the Association of Fire Ecology

The latest research findings, management treatments and policy initiatives

Venue: Missoula, Montana, USA

For more information go to: www.largefireconference.org

26 May 2014

South African Qualification and Certification

Committee assessment session

Venue: FPASA College, 105 Springbok Road, Bartlett, Boksburg, South Africa

Contact: Christine van der Westhuizen
Tel: 011 397 1618
Email: college@fpasa.co.za

For more information visit: www.fpasa.co.za

26 - 27 May 2014

Basic Life Support Instructor Course (BLS I)

All instructors must have a valid BLS Instructor Certificate and have a firm, working knowledge of the training materials, including textbooks and certificates to be issued for each specific course

Venue: Action Training Academy, Fourways, South Africa

Contact: Gugulethu More
Tel: 011 450 4981
Email: gugulethu.more@ata-international.com

26 - 29 May 2014

Workplace Fire fighting I

A programme covering practical fire fighting for incipient stage/small fires including the use of extinguishers, foam equipment, large diameter hose and BA if required

Venue: FPASA College, 105 Springbok Road, Bartlett, Boksburg, South Africa

Contact: Christine van der Westhuizen
Tel: 011 397 1618
Email: college@fpasa.co.za

For more information visit: www.fpasa.co.za

29 May - 1 June 2014

International Hazardous Materials Response Teams Conference

A Hazmat training programme hosted by the International Association of Fire Chiefs (IAFC)

Venue: Hilton Baltimore, Maryland, USA

Contact: Ana Davison
Tel: 001 703 537 4829
Email: adavison@iafc.org

For more information visit: www.iafc.org

June

2 - 6 June 2014

CFPA Europe Certificate in Principles of Fire Safety Engineering

Application of fire safety engineering principles to the design of buildings and includes input drawn from associated published documents (PD's) that deal with issues that are primarily associated with life safety

Venue: FPASA College, 105 Springbok Road, Bartlett, Boksburg, Gauteng, South Africa

Contact: Christine van der Westhuizen
Tel: 011 397 1618
Email: college@fpasa.co.za

For more information visit: www.fpassa.co.za

6 - 7 June 2014

Toughest Firefighter Alive Competition

This year the City of Cape Town Fire & Rescue Services will be hosting the 3rd South African Open Toughest Fire Fighter Alive competition. Expanding on the success of this event last year, fire fighters from various different Municipalities, the Armed Forces, Ports Authority, Aviation and many more are expected to participate in 2014.

Venue: Good Hope Centre, Cape Town
For more information visit and to register: www.capetown.gov.za/en/FireAndRescue/Pages/AbouttheTFA.aspx

9 - 12 June 2014

NFPA Conference and Expo

The premier event in fire and life safety

Venue: Mandalay Bay Convention Centre, Las Vegas, USA

For more information visit: www.nfpa.org/conference

10 - 12 June, 2014

Emergency Management and Crisis Response Summit – Middle East

This three day summit, tailor made for industry professionals from aviation, infrastructure, and oil and gas, will provide in-depth industry-specific insights

Venue: Dubai, United Arab Emirates
Contact: Jawad Ahmed, Project Manager
0091 982 237 5727
Email: jawad.ahmed@micequotient.com

11 June 2014

Basic Life Support for Healthcare Providers (BLS)

Participants will be able to perform the initial steps of cardiopulmonary resuscitation in victims of all ages, basic airway manoeuvres and rescue breathing with and without adjuncts

Venue: Action Training Academy, Fourways, South Africa

Contact: Gugulethu More
Tel: 011 450 4981
Email: gugulethu.more@ata-international.com

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Fire fighting and evacuation model

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Contact: Christine van der Westhuizen
Tel: 011 397 1618
Email: college@fpasa.co.za

For more information visit: www.fpassa.co.za

11 - 14 June 2014

Fire 2014 and NYSAFC 108th Annual Conference

The event will feature fire education programs and EMS workshops, as well as hands-on training and exhibits. It is billed as the Northeast's premier emergency services conference and expo

Venue: Turning Stone Resort, New York, USA
Contact: Email: ssyzdek@nysfirechiefs.com

For more information visit: www.nysfirechiefs.com

12 - 13 June 2014

Advanced Cardiovascular Life Support (ACLS)

Candidates will be competent to recognise and initiate the management of cardiac arrest and peri-arrest conditions

Venue: Action Training Academy, Fourways, South Africa

Contact: Gugulethu More
Tel: 011 450 4981
Email: gugulethu.more@ata-international.com

15 - 18 June 2014

The World Conference on Disaster Management

The conference seeks to provide a unique venue for disaster management professionals from around the world to present, network and learn

Venue: Metro Toronto Convention Centre, Toronto, Canada

For more information visit: www.wcdm.org/

15 - 21 June 2014

International Fire/EMS safety and health week

The event focuses on the critical importance of responders taking care of themselves both on and off the emergency incident scene.

For more information visit: safetyandhealthweek.org

17 - 19 June 2014

2nd International Tall Building Fire Safety Conference

Academic research papers from leading Fire Safety experts from around the world
Fire engineering case studies, Firefighting in Tall Buildings

Venue: University of Greenwich, London, UK
For more information visit: www.bcptesting.com

17 - 19 June 2014

FIREX International - Fire prevention, detection and protection

The leading event for every professional involved in fire protection, prevention and detection, offering a comprehensive selection of the latest thought-leadership alongside the best networking in the industry

Venue: Excel London, UK
For more information visit: www.firex.co.uk

18 - 19 June 2014

International Trauma Life Support (ITLS)

ITLS courses are designed for providers who are first to evaluate and stabilise the trauma patient. The courses provide complete training in the skills needed for rapid assessment, resuscitation, stabilisation and transportation of trauma patients

Venue: Action Training Academy, Fourways, South Africa

Contact: Gugulethu More
Tel: 011 450 4981
Email: gugulethu.more@ata-international.com

19 - 21 June 2013

European helicopter show

Demonstrations of forest and bush firefighting helicopters and associated airborne and ground equipment

Venue: Letiště 98, 503 41 Hradec Králové 7, Czech Republic

Contact: Mr Roland Vanhees
Tel: 00 44 020 224 223 157
Email: roland@dsa.com

For more information visit: www.eurohelishow.com

25 - 26 June 2014

IFE AGM and International Conference 2014

Intelligent Engineering Reducing Risk

Venue: Stratford Manor, Warwick Road, Stratford-upon-Avon, Warwickshire, CV37 0PY, UK

Contact: Sarah Simpson or Jo Fearnley on 00 44 (0) 1789 261463
www.ife.org.uk

26 - 27 June 2014

Basic Life Support Instructor Course (BLS I)

All instructors must have a valid BLS Instructor Certificate and have a firm, working knowledge of the training materials, including textbooks and certificates to be issued for each specific Course.

Venue: Action Training Academy, Fourways, South Africa

Contact: Gugulethu More
Tel: 011 450 4981
Email: gugulethu.more@ata-international.com

26 - 28 June 2014

Security and Fire Vietnam 2014

Security and fire systems and products that are commonly used in construction and building and home decorative industries

Venue: Saigon Exhibition and Convention Centre (SECC), Ho Chi Minh City, Vietnam

Contact: Dennis Lam or Melody Lam
Tel: 00 0852 28518603
Fax: 00 0852 28518637
Email: topreput@top-repute.com

For more information visit: www.construction-vietnam.com

30 June 2014

Fundamentals of fire investigation

The programme will promote a clear understanding of fire investigation and the rendering of opinion regarding origin and cause. It includes practical investigation exercises and is now aligned with NFPA 921

Venue: FPASA College, 105 Springbok Road, Bartlett, Boksburg, South Africa

Contact: Christine van der Westhuizen
Tel: 011 397 1618
Email: college@fpasa.co.za

For more information visit: www.fpassa.co.za

“A Fireman’s Son”

My dad’s a fireman and proud am I, indeed,
For he is someone special, whose wisdom I still need.

Dad and I are buddies and, to me, that means a lot,
A bond to last forever, with love that forms the knot.

He took me to parades, when other kids stayed home,
And he taught me to play baseball, on a field without a dome.

He showed me how to fix things, even let me use his tools,
What I learned from Dad, they don’t teach in schools.

The examples that he set, I follow every day.
Placing God and country first, in showing me the way.

Precious are those years, now tucked away with time,
Tenderly remembered: I, as the leaf. He, as the vine.

Dad, hear me as I say ‘I love you’ man-to-man,
And I’m proud to tell the world, MY DAD’S A FIREMAN.

Author ~ A Fireman’s son



Kishugu is a Swahili word meaning 'anthill'. Why an anthill? It is a symbol for structure and how absolute greatness and successes is always the result of dedicated teamwork and collaboration.

The success of the company will be based on the foundation of its global vision, to empower people to act together in order to make a social, environmental and economic difference for the greater good.



Moving forward
beyond the horizon ...

BC-300 Combi-Tool

Ogura BC-300 Combi-Tool
The BC-300 Combi-Tool is absolutely unique for the following reasons:

1. The lightest
2. The only one using Makita Li-Ion batteries and offering in-vehicle charging
3. The only tool to use removable, field-replaceable blade inserts

At only 14.2 kg, this is the lightest battery powered Combi-Tool around. As Ogura is the only rescue tool manufacturer with access to Makita batteries, the BC-300 can boast the most advanced power source available with in-vehicle charging options. Able to cut 24 mm bar with a spreading distance of 300 mm at over 5 tonnes, this battery Combi-Tool will not let you down.

Very narrow in profile, the BC-300 can be held close to the body whilst in use which maximises control and user safety.

In short, the Ogura tool is the most ergonomic of all battery powered Combi-Tools.

Features

- Low cost removable blade chips significantly reduce cost of ownership
- Field-replaceable blade inserts
- Lightweight and compact; offers real portability
- Revolutionary hydraulic pump gives incredible power
- No trailing hoses to trip over
- Immediate deployment
- 300 mm 5.9 tonne spread
- 32 tonne cutting pressure



Established 1928
Ogura



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www.fremtac.com

FREMTAC
fire and
rescue cc.