Wildfires

FireWeb Incident Management software system implemented at KwaZulu-Natal Fire Protection Association

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The KwaZulu-Natal Fire Protection Association (KZNFPA) is based at the Shafton Airstrip in the Karkloof, outside Howick in KwaZulu-Natal, South Africa and has recently installed the FireWeb information, incident and communications system in order to coordinate, manage and synchronise incident information, resources and reports.

The KZNFPA currently has 24 affiliated FPAs in the province covering just over 6,5 million hectares and incorporating in excess of 3 500 members (landowners) in total. The primary airbases where the KZNFPA is operationally involved are Shafton in the Karkloof, Riverdale in Richmond, Weza in Harding, Kwambonambi and Melmoth. The above airbases support on average eight single engine air tankers (SEATs), five spotter aircraft and two helicopters. The Shafton airstrip also hosts the provincial Working on Fire (WoF) helicopter and spotter.

FireWeb is a mature web-based information, incident and communications tool, tailor made for fire and rescue

services with users on the ground throughout South Africa and more recently within the United States of America and has utilised successfully in national, provincial, district and local government as well as in the private sector. Their product team consists of individuals from within the fire services and technical members with well over a decade of experience working with fire services and has spent over 10 000 hours gaining insight and performing user research into the challenges faced by our end-users in field and on the ground on a daily basis.
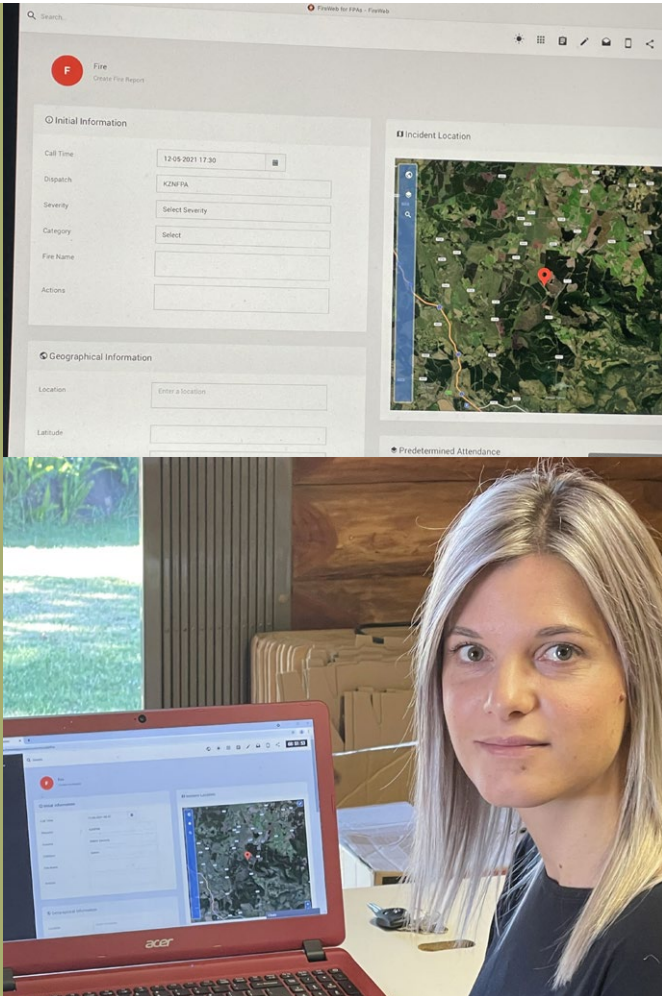
The KwaZulu-Natal Fire Protection Association (FPA), as the umbrella FPA for the KwaZulu-Natal Province in South Africa, is mandated to produce statistics for the National Department of Forestry, Fisheries and the Environment (DFFE). Various platforms such as the Fire Information Management System (FIMS), which was designed by the KZNFPA in conjunction with Alan Richert, a private IT consultant, have been used over the past few years to gather statistics. Unfortunately, the programmes were not web-based and as such, manual reports had to be

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FOR EFFECTIVE INTEGRATED FIRE INFORMATION MANAGEMENT

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

Proudly developed and supported in South Africa.

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▶ generated by the three FPAs in the Province currently using FIMS in order for the umbrella FPA to combine and create a report. A very simple Excel spreadsheet was also used to generate a weekly report by all FPAs in the Province to enable the KwaZulu-Natal Umbrella FPA to manually create the weekly report, which is then submitted to DFFE, Cooperative Governance and Traditional Affairs (CoGTA), etc. "All in all a very cumbersome exercise," said Simon Thomas, operations manager and fire protection officer at the KwaZulu-Natal Fire Protection Association.

For many years, there have been attempts to create one standard reporting web-based programme for fire statistics but this has never really taken momentum.

"When I first had insight into FireWeb, I immediately saw this as the solution to the above requirement and we started investigating the programme to see whether it would fulfil our needs, at least in the KZN FPA. As such, FireWeb was approached to present what was achievable and what they would be able to do to fulfil our requirements remembering that in KZN we have aviation, detection and then our other

FPAs not involved in the aforementioned", added Thomas. He continued, "They were able to present solutions to our requirements and as such the KZN FPA was mandated to go ahead and implement the FireWeb system for the corporate growers to start with. Two major timber growers in the region are now on board with others soon to follow. KZN FPA holds the parent license with the corporates and at present we have child licenses with Zululand FPA and Zululand Inland FPA with the aim of the other FPAs eventually coming on board holding the additional child licences for the application."

We asked Thomas what features of FireWeb made him choose it for the KZN FPA, to which he replied, "We chose FireWeb because of its ability to generate comprehensive fire reports for all fire incidents. Added to that, it's able to interface at a company level with the GIS database and FireWeb's ability to create a movement of resources thus enabling us to include aircraft movement for the relevant member to see. Strict security settings will only allow certain tiers of members within a particular organisation to view information. It also integrates fire reporting from detection centres and integrates with Vital Fire Weather to keep current FDIs during events as live as possible."

"For administration, historic data of incidents in excess of 18 000 plus fire data from FIMS has been incorporated into FireWeb allowing for some really comprehensive reports and trends to be generated. For dispatch, aerial support and reporting, the immediate capturing of aircraft movement for all to see on the incident is now possible. Added to this, for resource management, the incident commander is able to see either on his laptop or on the phone app what resources are at the incident. Vehicle movement of other available resources can be monitored in a single place."

The FPAs in the province are now able to report all of their members and smaller members' incidents on the system. Using the App, small growers and other members can record their incidents for uploading onto the system once in data cover."

"Risk management, such as vulnerable areas risk maps, can be integrated with the system. Post fire debriefs and investigation reports are uploaded to the incident and as such trends can be plotted for future risk mapping. Burn scars etc pictures can be uploaded to an incident using your smartphone camera. Any voice notes can be uploaded and using the mobile application, burn scars can be plotted and uploaded," said Thomas.

Benefits to FPAs

Incident reporting
- FireWeb has an integrated mapping solution, bringing the power of own GIS systems into the dispatch and reporting function. This allows for the grouping of all incident information on a single record, multi-day fires included.
- Occurrence book entries, media such as photos, videos and voice notes as well as polygons and attachments

all archived with the incident for audit purpose.

- When populated correctly, FireWeb serves as a powerful statistics database allowing for a wide variety of reports ranging from incident hotspot reports through to trend analysis reports.

Resource logs

- As the FPA, you are now able to manage all your different resources (either owned, or contracted) from an aerial and ground resource perspective
- Generate performance reports on your resources and associated drivers and/or pilots
- Export log book entries for a period or resource (or further based on criteria entered)
- Analyse per incident, per region, per dispatcher, per dispatch centre, per season etc
- Allocate tariffs and perform real-time cost estimates for incidents from a manpower, aviation and vehicle perspective.
- Link FPA responses to a member fire, saving time in populating that data a second time (for the member)

Service providers

All service providers either use FireWeb via their FPA or have their own installation allowing for free flow sharing of incident resource information from a ground and aerial perspective. This prevents duplicate capturing of information and has major time saving benefits for all involved parties relying on the accurate capturing of the various service providers.

Collation of data

If integrated with others such as other FPAs, umbrella FPA etc, FireWeb automatically serves as a data submission tool, no more need for email or upload into another system and collates the information across the board into automated statistics reports for all of the above areas ie incidents, resources, logs etc. Member report submission can be automated, no longer needing to collate additional fire reports as submitted on interval based submissions.

Ease of access

Use advanced search tools for find information/incident reports by a variety of criteria ranging from area, dispatcher, dispatch centre, vehicles, aircraft, personnel etc.

Live chat

Live chat with service providers, other dispatch centres, other services using the same product as well as members.

Benefits to members

Mobile application

FireWeb has a mobile reporting application which enables foresters and other members to capture their incidents / fire (emergency and controlled) with information such as: description, location, time, photos, videos, voice notes, polygons with estimated hectares/metres and additional reporting meta required.

FireWeb has successfully and will integrate with FireHawk with detections feeding through into the mobile application

and online. It converts a detection event into an incident and later link FPA movement reports if needed.

Compile national fire statistics reports

FireWeb has included the national fire statistics report that each member is required to complete. This can be completed after initiated either online or via the mobile application. Integrations with GIS tools make completing the report easier as there is access to fuel load information (if shared confidentially), age, species etc. Now there is a single point of entry for all information (as opposed to word documents or spreadsheets), then re-calculated to generate a fire register and re-calculated for costing etc. The system includes tracking of incident costing based on own tariffs ie per km for vehicles by type, by hour per role; personnel and by aircraft per hour.

The FireWeb system offers major time saving in collecting captain's logs, route forms and other FPA supporting documentation as the incident is simply linked and allows for the uploading of all supporting evidence for inclusion in reporting or for audit queries ie insurance etc.

Generate standard reports from source

The standard reports are branded in PDF format and are generated on request as needed.

FireWeb has been implemented in preparation for the upcoming fire season and will assist the KZNFPA with its management. ⚠