

# Customer Story

Quantifying bushfire damage quickly with GIS technology to focus relief and recovery efforts



## At a Glance

### What they wanted to do

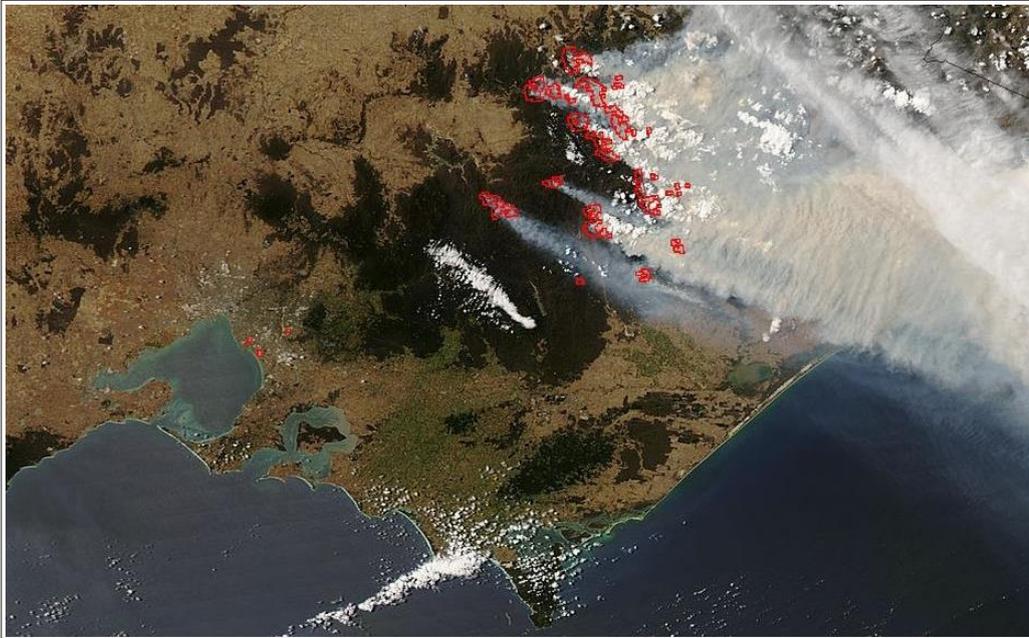
- » MFB wanted to improve the way they surveyed and reported on damaged areas in emergencies
- » Allow teams in different areas to report on the move and roll up information so decision makers could respond more effectively

## The Organisation

The Metropolitan Fire Brigade (MFB), also known as the Metropolitan Fire and Emergency Services Board, provides firefighting, rescue, medical and hazardous material incident response services to the metropolitan area of Melbourne.

MFB's 2,200 employees provide services to almost three million Melbourne residents, workers and visitors, and safeguard assets and infrastructure worth billions of dollars in an area of over 1,000 square kilometres.





## What they did

- » MFB's USAR team started using the ARM360 tool, which allows standardised reporting in the field with easy to use software
- » Provided coordination teams a common operating picture of the situation on the ground

*"The MFB is now the first agency that the state will call on to do impact assessments...and in part it is because we have got this tool. It does the quick reporting and is simple to use and they've decided that when they need confidence, they call the MFB."*

**Greg Plier, Senior Station Officer, Technical Rescue Unit - USAR, MFB**

## Project Background

The MFB's Urban Search and Rescue (USAR) unit, which collects information on the extent of damage during an emergency event, was using paper based reporting methods, which did not have a spatial component.

MFB recognised that the gap in spatial reporting was affecting relief and recovery agencies' abilities to respond effectively to events in Victoria. The reports they produce did not allow incident controllers to direct resources and their paper-based system was impacting on their ability to effectively deploy relief.



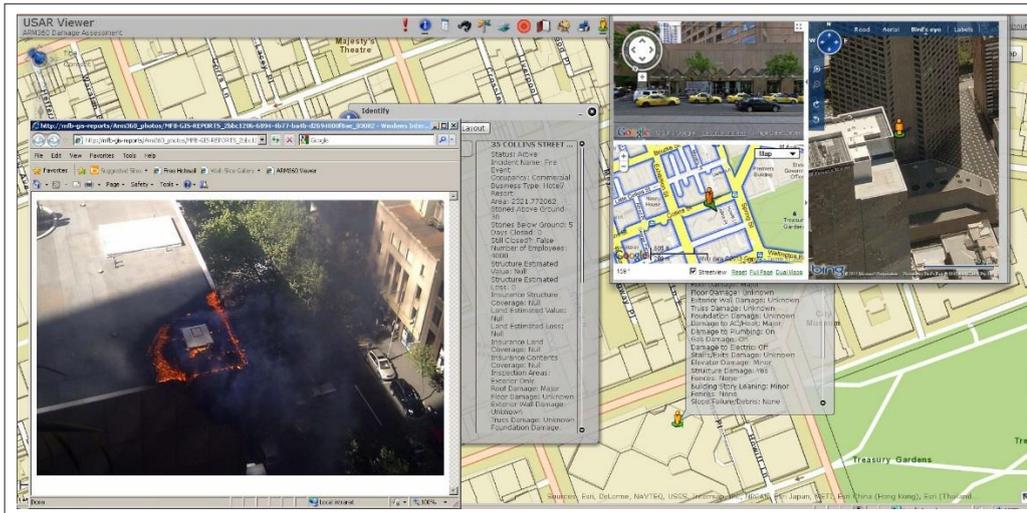
## The Challenge

The MFB needed a system that would be easy to use in the field and would give the team the ability to collect and report damage data quickly, roll it up to a central system and see a common operating picture that would help relief and recovery agencies direct resources.

As the team works in vast areas with dispersed teams it needed a tool that would work with mobile data constraints.

## What they accomplished

- » Improved initial impact assessment reporting time up to 60-fold
- » Added valuable functionality that improves decision making



## The Solution

NGIS deployed the ARM360 tool, which allows users to quickly classify damage into pre-determined categories using polygon drawings and points. Entire streets and areas can be surveyed as safe, damaged or destroyed to eliminate the need to report on individual properties. The system enables reports, photographs/video in various forms that will give information to ministers, senior agency officers, incident controllers and other recovery agencies.

ARM360 allows incident controllers to make improved, informative decisions, therefore allowing more efficient use of agency resources, by allocating those valuable resources to areas in greatest need.

*“When we went down to Wye River, we assessed about 300 properties in about four hours. If we were doing that on paper, it would have taken days. When you use ARM360 you get the exact address, the GPS location, a photo, it’s live on a map. What helps is that with a push of button you can generate a report of the properties that can be emailed to relief and recovery agencies so they can help the affected communities.*”

**Greg Plier, Senior Station Officer, Technical Rescue Unit - USAR, MFB**

## The Results

ARM360 provides instant operational awareness with managers able to watch the initial impact assessments live from their coordination center, view images of damaged properties and generate summary statistics on the progress of assessments.

During the 2014 bushfire season Victoria had two significant fires burning simultaneously at Mickleham/Kilmore and Gippsland. MFB USAR teams were able to assess and map more than 2500 properties in four days.

MFB mapped and reported multiple assessment types including, point of ignition, through to multiple point, line and polygon assessment on individual properties. This data collection was approximately 60 times faster than when using previous methods.

### About ARM360

ARM360 is an off the shelf solution that allows agencies to map assess and report incidents, perform impact assessments and more.

