

AFIS Mobile App

PHILIP FROST AND DERICK SWANEPOEL

CSIR Meraka, PO Box 395, Pretoria, South Africa, 0002 Email: pfrost@csir.co.za – www.afis.co.za

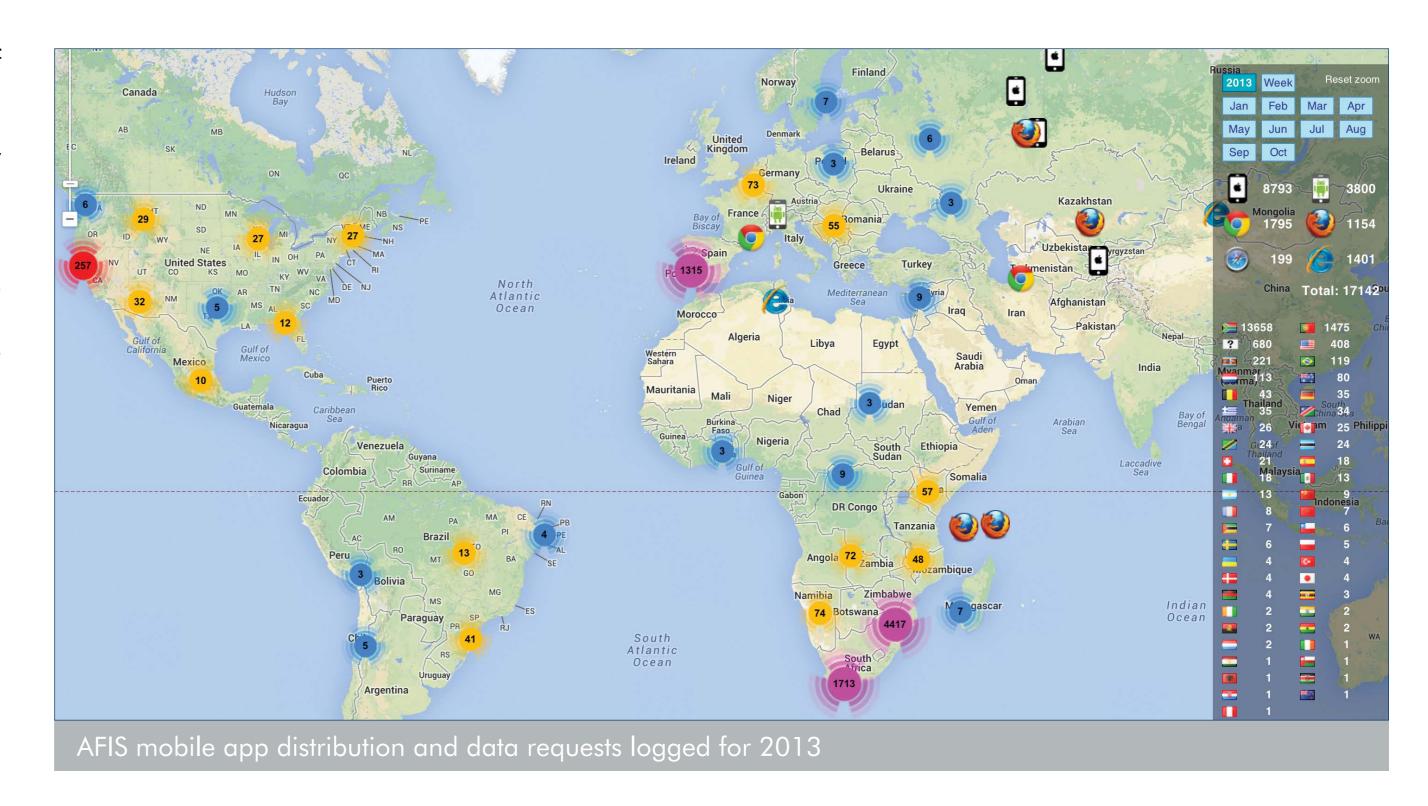
The CSIR Meraka in partnership with the Department of Science and Technology, Department of Environmental Affairs, Department of Agriculture, Forestry and Fisheries and South African National Space Agency have launched the Advanced Fire Information System (AFIS) mobile app for Apple iOS and Android devices. The app provides fire managers, farmers and disaster personnel with a tool on their smart devices to receive information regarding the prediction, detection, monitoring and assessment of wild fires across Southern Africa as well as globally.

Main features include:

- Satellite-detected real-time active fires displayed on a live map around the location of the mobile device and/or user-defined locations.
- Fire danger ratings and indices based on live weather information (e.g. wind speed, air temperature, relative humidity).
- Current vegetation "curing" or dryness relative to 13 years of satellite-derived vegetation greenness data (which has a very large effect on fire danger).
- Detailed information about detected fires (e.g. fire radiative power, intensity, time of detection).
- Fire history showing a location's fire events in the last 13 years in relation to historical vegetation curing using graphs, as well as statistics such as the fire count, frequency and time since last burn.
- Land cover information based on South African and United States National Land Cover.
- Alerts of detected fires delivered as push notifications.
- The ability to track the location of fire fighting assets in the field.
- A fire danger calculator which allows individuals such as farmers with access to weather information to calculate their own fire danger ratings based on their local measurements.

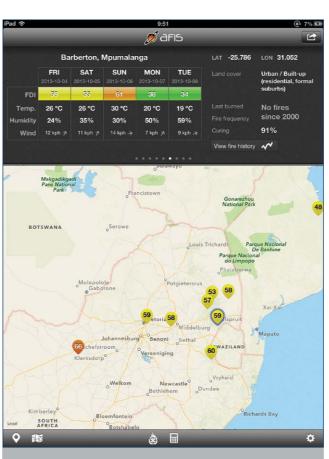
AFIS Mobile is the only mobile application of its kind that builds upon advanced, mature and unique systems such as the Advanced Fire Information System (AFIS) and the AFIS Alerts System. Its novelty extends to the use of unique data sets designed by the CSIR based on internal research; these datasets are not available in any other applications.

While AFIS Mobile is a companion to the existing AFIS web viewer, it is a completely new system designed from the ground up to leverage mobile technologies and with a focus on mobile use cases. It offers a new way to explore and interact with the various AFIS services and opens them up to a wider audience, especially since the existing AFIS online viewer is not optimised for mobile devices. AFIS Mobile integrates all the existing AFIS services with new functionality and information into a single, coherent application. For example, AFIS Mobile allows users to receive and view fire alerts within the same application that they use to view active fires and fire reports, whereas the desktop AFIS viewer has no such integration. Some of the functionality pioneered within AFIS Mobile such as fire reports and burned sum maps have subsequently been adopted by the AFIS online viewer, thereby increasing its utility to existing users.

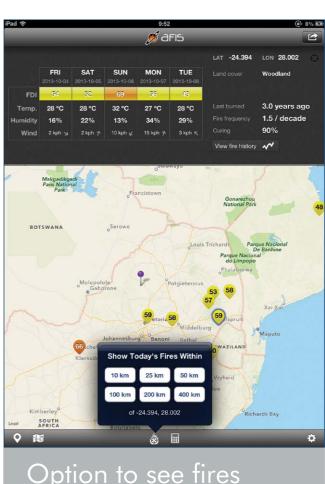








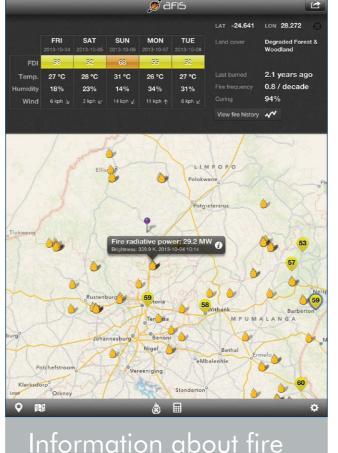
App display FDI forecasts for pre-defined areas



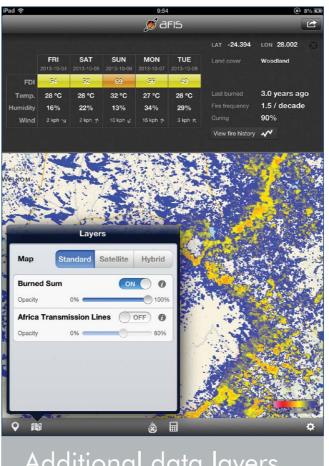
Option to see fires within radius of pin dropped



Calculator







Additional data layers such as burn area sum

Most similar applications are limited to specific regions or countries, whereas AFIS Mobile covers Africa, Europe and the United States, and in some cases offering global coverage. It also provides a greater variety of fire information, including unique products such as a global burn count map that was designed in-house. Competing applications typically allow users to receive alerts only for their current location, whereas AFIS Mobile leverages the flexible and powerful AFIS Alert System that allows users to define complex alert criteria for any location or region of interest.

The AFIS mobile app forms part of the larger AFIS System (www.afis.co.za) that supports fire managers across the globe with both historical and near real time fire information. The system utilises information from various sources including earth observation satellites and numerical weather prediction models to assist in fire management.





The mobile app is available for free to all users with Apple IPhones and Ipads as well as to all Android devices.



Please visit the AFIS website for more information: http://afis.co.za/mobile/