

4) Fire-Stations

(See PDF 1 for Overview .
2) for Rules and 3)Benefits

**A new future “Head-on”
Your initiative to:-**

Help fire-stations & first-responders to:-

- Add new equipment and
- Support first-responders & volunteers to:-

Stop wildfire & mudslide devastation

The Firefly Innovations

*Experience & commitment that serve and have
stood the test of time:-
A new vision & reflection of success*

“Head-on” an exciting initiative

that will help to

Reduce the impact of wildfires

Head-on is an initiative to development

1. **New fire containment and suppression equipment**
2. And assist wildfire-prevention organizations to improve wildfire prevention

Introduction

Due to the longer wildfire seasons and the increase in the destruction by wildfires and the follow-on mudslides.

Fire services and fire-stations face new challenges to:-

1. **acquire & fund new equipment**

As a result of international research & co-operation the “Head-on” initiative was launched to:-

Focus on the design and development of new wildfire equipment that:-

1. **Can meet the increased challenges of wildfires**
- and
2. **Assist fire-stations & wildfire prevention organizations to:-**
 3. **Acquire new equipment and develop new options to:-**
 4. **Help with the containment and suppression of wildfires**



As natural phenomenal we cannot stop wildfires completely, but:-

- **We can reduce the destructive impact by up to 80%**

1) Major benefits overview

“Head-on” is designed to support both fire-station & wildfire prevention organizations with current and challenges and future challenges faced by;-

- Fire-stations
- First responders and
- Community wildfire prevention organizations

Challenges such as

- Equipment
- Funding
- Recognition of their expertise, work and the necessity of fire services
- Personnel challenges

Specifically to develop methods and equipment that can **match** the new wildfire challenges:-

- As well as, to improved wildfire loss prevention measures
- Speed of detection, reaction and deployment of assets
- High wind scenarios
- Steep gradients, rugged and inaccessible terrain
- Access and availability of containment and suppression resources
- Water availability & options to reduce required water
- Increased fire containment and suppression effectiveness

In simple terms equipment that **match** the challenges.



“Head-on” truly is a unique future directed, solution driven and empowering initiative.

Benefits for Fire-stations:-

- 1) Access to new methods and equipment, as well as, custom designed equipment for local regional challenges.
- 2) Funding leverage via savings through equipment design, for access to affordable equipment.
- 3) Future directed skills development for first responders.
- 4) Personal recognition and motivation of personnel.
- 5) Community, business and government collaboration and support.
- 6) Broader community loss prevention support.

Benefits for Community wildfire prevention organizations:-

- 1) To substantially improve wildfire loss prevention measures.
- 2) Increased community recognition, participation and funding.
- 3) Funding; -“Head-on” will also introduce new concepts with regards to the funding for both new measurements for loss prevention and the maintaining of loss prevention ongoing required actions.

Benefits for First Responders

- 1) Safe and suitable equipment
- 2) Ease of use including
- 3) Health protecting with emphasis on avoiding threats such as cancer and accidents by first responders
- 4) **Innovations skills to empower first responders**:-
 - 4.1) For better wildfire containment and suppression, as well as career development and
 - 4.2) Assistance to aspiring new first responders for men & women.

The fire seasons are getting longer with:-

- an increase in the destructive impact of wildfires &
- ensuing mudslides

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(Please note this writing is directed at Fire-stations & Community Wildfire Prevention Organizations to introduce "Head-on" to fire-stations, Community Wildfire Prevention Organizations and

- should be read in conjunction with Head-on's
 - 1) Overview, 2) Rules, and
 - 3) Benefit write-ups.
- All which are available for downloading from-

<http://www.thefireflyinnovations.com/home/?p=29529/#MainTools>

2 "Head-on" is an initiative designed to:-

- Stop and reduce the growing destructive impact of wildfires
- and
- the follow-on mudslides

A success formula

- Experience and innovation
- The foundation for future solutions



3 There are three key elements for success:-

1) **Existing fire services**:-The recognition, working with and supporting of existing fire services, including Community Wildfire Prevention Organizations.

2) **Proactive collaboration** between the fire-services and communities, including businesses and government.

From land use, town planning, loss prevention through to containment and the suppression of wildfires. With in an economic framework.

3) **Innovation** as the foundation for the development of new equipment and methods to meet these new challenges

4 And two main building blocks under the initiative:-

1) **An innovation competition** to design, develop and provide fire services & Community Wildfire Prevention Organizations with new equipment and methods to combat and reduce the impact of wildfires and the mudslides

2) **Innovation support** to fire services, Community Wildfire Prevention Organizations and their communities. And assistance to fire services, to establish innovation hubs at fire-stations. To serve as innovation platforms that bring all the role-players together, from fire services, the community, business and government. The hubs are referred to as:-

“First Responders Innovation Hubs”

The objectives of the innovation hubs are to specifically:-

1. Maximize input and to achieve the broadest participation across all sectors to seek **the best possible solutions**.
2. At the same time, to serve as development assistance support platforms for First Responders. Introduction to “Head-on”

Wildfires are globally increasing, both in number of fires, ferocity and ground level damage. “Head-

on” focuses on the ground level reality and not the environmental debate.

Focusing therefore on factors such as, the fact, that the fire seasons have become longer. With the longer fire seasons there is also an increase in ferocity, property, environmental and human risk factors.

“Head-on” believes that these conditions are manageable and that equipment and methods needed to manage the increase in the challenges can be developed if linked to fire mercies.

In simple terms, it is Head-on’s belief that if SpaceX can orbit a sports car around the sun, we can curtail and suppress the increase in ferocity and damage of wildfires & mudslides.

It will however require innovative thinking, from initial planning, prevention, management, equipment through to frontline actions.

5 Existing fire services:-

It is our belief that the aforementioned can only be achieved through:-

The recognition, building on and with the expertise of existing fire services & Community Wildfire Prevention Organizations

1. **Within a culture and commitment to reduce the impact of wildfires & mudslides.**
2. **A willingness to examine and assess existing methods and equipment.**
3. **A search for improvements from management, methods and equipment utilized, including frontline actions and**
4. **Base practices such as ground use, town planning and forestry practices.**
5. **With collaboration across communities, fire services including business and government.**

It is within this framework that the “Head-on” initiative is launched, through the introduction of a wildfire innovation competition.

Bringing together

Bringing together fire services, Community Wildfire Prevention Organizations, communities, businesses and government.

“First Responders Innovation Hubs”.

The initiative introduces and encourage the establishing of innovation hubs, within fire stations as the central coordinating platform.

Bringing together experience of existing fire services, Community Wildfire Prevention Organizations with input of possible ideas and suggestions from the public, as well as, businesses and government expertise.

In this regard, it is an objective:-

To include all businesses immaterial of a direct connection to fire services or not. To specifically stimulate cross industry ideas and technology innovations.

The competition provides for public and business funding participation

The competition further, provides for public and business funding participation. Especially taking into account, the high risk factor to develop ideas and innovations relating to wildfire equipment.

6 Existing challenges and focus areas of fire services*

* This includes challenges of Community Wildfire Prevention Organizations. “Head-on” also believes that it is critical, that the existing challenges and focus areas of fire services need to be accommodated, including aspects such as:-

- Funding,

- Personnel, especially where voluntary services constitutes a high percentage.
- Public relations, collaboration and recognition of the expertise of fire services within the community.

For this reason the initiative provides an internet Blog facility through which fire services and all role players can highlight areas of importance to ensure:-

- That prioritizing and the focus of the innovation drives focus on those areas that are of specific importance to fire services.

7 The complexity of wildfires

There are a number of factors that relate to the complexity of wildfires that will be highlighted and serve as a framework to guide innovations such as:-

1. That any new inventions have to be evaluated through the expertise of existing fire services.
2. That no single solution can be viewed as an overall solution. But that in any fire combating situation a combination of options have to be deployed. From frontline firefighters at ground level through to air tankers and or new options. .
3. That there need to be practical considerations with regard to the cost of containment and suppression which is currently balanced through the “Let it burn” approach where applicable.
4. That the conditions of all fires with regards to weather, wind, geographic terrain and availability of resources such as water, differs substantially.
5. That the methodology used and new equipment developments have to take into account downstream rehabilitation, environmental and prevention of mudslides.
6. That ownership of fire fighting assets often does not overlap with the geographic location of wildfires.



7. That most **local communities**, on their own do not have the financial means and that the current mechanism for Federal funding, that is currently under review, needs to be in place.

8 Public and fire service oversight of the initiative

It should also be noted, that the current initiative is launched by Lateral Economic Activity Development cc a register company under the trading name "The Firefly Innovations";-

- But that there is a commitment and a vision that the "Head-on" initiative should be governed through broad public participation including fire services.

It is with this objective in mind that new innovation development, in our belief, should be anchored in the fire services.

9 The Conduct of "Head-on"

"Head-on" is apolitical.

And it recognizes the individual autonomy of Federal, State and county organizational and legal structures of fire services.

Lastly although there is no official agreement with fire services at this point of time, the conduct and directing of the initiative will always be subject to the guidance of existing fire services and in good faith.

Contact details

Email; - fire@thefireflyinnovations.com

Phone: +-27 73 386 2910

The Website www.thefireflyinnovations.com/?p=30107

10 Giving back to volunteers

Taking into account the previous paragraph and the high percentage of reliance on volunteers, especially with regards to wildfire containment and suppression in communities:-

The initiative is an initiative that gives back to volunteers & which empowers by providing future directed skills to volunteers & fire personnel.

11 Who & how can Fire-stations participate?

Any Fire-station or **Community Wildfire Prevention Organization in the USA**, that is adopted and nominated by a person (Member of the public) as setout in the initiative rules.

Subject thereto that a Fire-station or Community Wildfire Prevention Organization needs a minimum of twenty members (Sponsors) to adopt and sponsor the Fire-station before a fire-station can enter the competition; and

In addition, the Fire-station must establish and operate a First Responder Innovation Hub.

12 Progress to date

Progress:- Under the "Head-on" initiative there are already new options that will be developed.

It is projected that these developments could result, base on 2017 scenarios, containment and suppression cost savings in excess of \$300 million annually or \$2,7billion over five years.



*A chance to win:- A once in a lifetime
"African Family Safari"*