

## Question & Answers - Landscape Burn Probability - Fall 2019 Webinar

- How much variability would there be between different Burn Probability runs since the runs are randomly generated? And should they create relatively similar maps?
- <u>Is the 3.5 million acre max contiguous or can you upload a shapefile with multiple individual shapes that add up to less than 3.5?</u>
- Do you have a rough timeline on when the ability to save your ignitions feature will be online?
- How can we create a map that contains information of Burn Probability and Conditional Flame Length at different wind direction inputs?
- Is the ignition location independent with each other?
- Does this model share the same Fire Behaviour module with FSim? Or what is the common point between FSim and this model?
- But i thought the last speaker added their own fuel models and canopy cover?
- Fuels planning for a single burn unit/block. If I am interested in looking only at potential for fire escaping my burn unit do you have any tips or tricks?
- Is there a plan to increase the square landscape max size?
- 3.5 million is too small for my forest, that's why I ask Shasta-Trinity
- If you have calibrated LANDFIRE grid data can you load that into IFTDSS?

#### How much variability would there be between different Burn Probability runs since the runs are randomly generated? And should they create relatively similar maps?

There can be quite a bit of variability depending on your inputs (especially wind). try it with opposite wind directions - you may get very different results. We will be adding the ability to save your ignitions and re-run with different inputs so you can compare. If you use the same inputs and only re-run based on different random ignitions you won't get much difference in outputs... there will be some, but not drastic differences. See LBP Run Considerations in Help for additional information.

https://iftdss.firenet.gov/firenetHelp/help/pageHelp/content/20-models/lbp/runconsiderations.htm



# Is the 3.5 million acre max contiguous or can you upload a shapefile with multiple individual shapes that add up to less than 3.5?

The 3.5 million is based on the Square that you draw for you landscape which is represented by a turquoise box. IFTDSS will automatically buffer your landscape extent by 5 KM. If your individual shapes are less than 3.5 million but the box you need to encompass all those shapes exceeds 3.5 million than it won't run. Your shapes would have to fit within the 3.5 million acre "box".

## Do you have a rough timeline on when the ability to save your ignitions feature will be online?

Rough timeline on being able to save ignitions will be when we release the Exposure Analysis, so likely Early February.

#### How can we create a map that contains information of Burn Probability and Conditional Flame Length at different wind direction inputs?

You have to create a separate run and map output for each wind direction scenario. You can download the outputs to compare in an external application (ArcMap - see Help Center) now or you can use the swipe tool in map studio to compare by overlaying two different LBP model run outputs. Down the road the comparison dashboard will allow a more robust comparison but this model is intended to represent only one single wind direction in the outputs.

#### Is the ignition location independent with each other?

Yes they are, each ignition location is random and independent. Details are available here: <a href="https://iftdss.firenet.gov/firenetHelp/help/pageHelp/content/20-models/lbp/in/nofiressimlbp.htm">https://iftdss.firenet.gov/firenetHelp/help/pageHelp/content/20-models/lbp/in/nofiressimlbp.htm</a>. Each ignition is independent meaning they don't interact as each fire grows (ie, one ignition doesn't "know" that there is another ignition next door). Also each run you do has a new set of random ignitions. We will be adding in the future the ability to save your ignitions so you could rerun with the same ignitions in order to compare different inputs



# Does this model share the same Fire Behaviour module with FSim? Or what is the common point between FSim and this model?

This model is different from FSIM. Landscape Burn Probability in IFTDSS uses static weather where FSIM uses variable weather. This is covered well in the help content and the technical documentation within the Help Center of IFTDSS.

## But I thought the last speaker added their own fuel models and canopy cover?

Once you create a landscape you can make edits to it via the Cycle>Landscape Evaluation>Edit Landscape.

# Fuels planning for a single burn unit/block. If I am interested in looking only at potential for fire escaping my burn unit do you have any tips or tricks?

The Landscape Fire Behavior Model and Minimum Travel (MTT) time model are better suited for this purpose than the Landscape Burn Probability model. MTT is not yet available in IFTDSS but will be developed in the coming year.

#### Is there a plan to increase the square landscape max size?

Right now we can run 3.5 million acres. We don't have any plans to increase this at the moment. There may be some potential for that in the future as we increase server and processing capacity. We would like input from users on how they want to use the model. IFTDSS is intended to be used at the unit level (forest, district, park etc).

## 3.5 million is too small for my forest, that's why I ask - Shasta-Trinity

I understand. In many cases it is often better to run smaller runs depending on your forest..for example if there is a lot of differences in areas across the forest based on topography, weather, fuels, disturbance etc. it may not make sense to run the entire forest all at once. There is help content available on combining spatial outputs.

https://iftdss.firenet.gov/firenetHelp/help/pageHelp/content/20-models/lbp/moscaiclbp.htm

#### **IFTDSS**



## If you have calibrated LANDFIRE grid data can you load that into IFTDSS?

Currently landscape files can only be created and edited in IFTDSS, we don't yet have an ability to upload grid or raster data.