



Modeling National and Regional Resources in Fire Program Analysis (FPA) IR_028_WP

Purpose

This paper describes how Fire Planning Unit (FPU) planners enter national and regionally funded resource information into Fire Program Analysis (FPA) for their FPU analyses.

Discussion - Modeling Shared Resources

Modeling National Resources

The following national shared resources are available for FPU's use in their analyses.

- Aerial resources: Type 1 & 2 airtankers, national Type 1 and 2 helicopters,
- Smokejumpers, smokejumper aircraft, and/or
- National Interagency Hotshot Crews.

National resources are “no-cost” resources to the FPU; the national level pays their costs. This means FPA models initial attack using these resources, but their costs do not appear in an analysis. Nationally shared resources are available to all FPUs and the National FPA Team enters these resources into the system.

Regionally-Funded Shared Resources

FPA also models regionally funded shared resources in an analysis. This can include aerial resources such as helicopters. The National FPA Team enters these resources into the system.

These resources are “no cost” resources. Regions pay their costs and so the costs may not appear in the local FPU's preparedness or fuels budget analysis. Whether they are “no cost” resources, or funded by the local unit, the FPU should enter the percentage of time these resources are available. If the FPU base allocation for preparedness includes unit-level support funding for regional shared resources, FPUs need to enter the cost in the FPA Preparedness Options screen.

Non-Federal Resources

FPUs should include in their analyses resources not owned by the federal government but are common responders to fires on federal lands. FPUs enter the dispatch locations for these resources and add these resources in the dispatch logic to reflect their typical historical response or availability. This improves the accuracy of the modeled initial attack capability. In most cases, non-federal resources do not respond 100% of the time and are not available 100% of the time. For further clarification on the use of non-federal resources, see [Using Fire and Fuels Resource in FPA](#).

[Table 1](#) lists those resources frequently shared among FPUs and includes information about how FPA models these shared resources. For each resource type, the columns indicate whether or not an FPU Planner:

- Can assign that resource to a dispatch location in the FPU,
- Must include the cost of that resource in the local FPU costs,
- Can create this type of resource as a new resource within the FPU, and/or



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- Can adjust the percent availability of a resource.

When assigning the percentage available for shared resources, consider the normal or average amount of time during the regular fire season that each particular resource may be available. For example, an Interagency Hotshot Crew may have historically been available locally for suppression assignments only 10 days of a 120-day funding period. In this case, they would be available 8% of the time.

Table 1: Modeling Shared Resources in FPA

Resource Type FPU's May Share	FPU Can Assign Resource to a Dispatch Location (Y/N)	FPU Must Include Resource Cost in their FPU Budget (Y/N)	FPU Can Create as a New Local Resource (Y/N)	FPU Can Adjust Percent Available (Y/N)	Comments
Airtankers (Type 1 & Type 2)	N	N	N	N	FPU's specify the need for an airtanker in their dispatch logic. Airtankers respond from nationally defined dispatch locations.
Single Engine Airtankers (SEATS)	Y	See Comment	Y	Y	FPA models these resources like other local resources. FPU's must enter contract and support costs in their analysis if the resource is funded-locally.
Scoopers (Fixed wing aircraft with water scooping capability)	Y	See Comment	Y	Y	FPA models these resources like other local resources. FPU's must enter contract and support costs in their analysis if the resource is funded-locally.



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Type 1 Helicopters (Existing)	N	N	N	Y	FPU's must enter helitack or transported crews separately as they are not included with the helicopter resource. Do not show costs for <i>existing</i> Type 1 helicopters. If the FPU chooses to add helitack or add helicopters beyond existing numbers, see the Type 1 Helicopters (Additional) row for guidance.
Type 1 Helicopters (Additional)	Y	Y	Y	Y	FPU's can add Type 1 helicopters; however, they must enter the total contract cost and any associated support costs at the FPU level.
Type 2 Helicopters (Existing)	N	N	N	Y	FPU's must enter helitack or transported crews separately as they are not included with the helicopter resource. Do not show costs for



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					<i>existing</i> Type 2 helicopters. If the FPU chooses to add helitack or add helicopters beyond existing numbers, see the Type 2 Helicopters (Additional) row for guidance.
Type 2 Helicopters (Additional)	Y	Y	Y	Y	FPUs can add Type 2 helicopters; however, they must enter the total contract cost and any associated support costs at the FPU level.
Type 3 Helicopters (Existing & Additional)	Y	Y	Y	Y	Type 3 helicopters, contracts, and associated staffing costs, including helitack, are shown at the FPU level. Additional helicopters can be included in the analysis, but all costs must be shown at the FPU level when entering the resources.



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					Existing nationally or regionally funded helicopters have an assigned dispatch location that the user cannot change.
Helitack & Rappellers (Additional)	Y	Y	Y	Y	FPU's can add helitack and rappellers to existing and/or additional helicopters; however, the FPU enters any additional costs for these new resources (staffing and support.)
Smokejumpers - Alaska	Y	Y	Y	Y	Smokejumpers are a local resource in Alaska. The Alaska FPU enters all smokejumper information.
Smokejumpers – Lower 48	N	N	N	Y	In the lower 48 states, smokejumpers and their bases, including satellite bases, are national resources entered by the National FPA Team.
Smokejumper Aircraft - Alaska	Y	Y	Y	Y	The Alaska FPU enters the smokejumper aircraft as local resources.



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Smokejumper Aircraft – Lower 48	N	N	N	N	To simplify the model, FPA uses a single “average” type of aircraft to transport smokejumpers. The FPA National Team enters the aircraft typically located at main and satellite dispatch locations.
National Interagency Hotshot Crews	N	N	N	Y	The hosting FPU does not include costs for the crew and its support. The National FPA Team enters these resources and their respective dispatch locations.
Other Type 1 Crews	Y	Y	Y	Y	These crews are modeled and paid for as an FPU resource.