

Proposed Bond Issue for Upgrading the Fire Fighting Aircraft for the Forest Protection Branch January 2021

The Forest Protection Aviation Branch consists of a chief pilot, four ranger pilots, and all dual rated in fixed-wing and helicopters. The aircraft are maintained by a mechanic supervisor and three FAA certified aircraft mechanics.

The aircraft fleet consists of:

- Five Vietnam era (1965-1968) UH-1H (Huey) utility helicopters that can only be used for firefighting, law enforcement, and search and rescue. They carry up to ten firefighters and a 240-gallon bucket of water. Three of the five have been overhauled at the factory, but all show signs of age and wear.
- Two smaller civilian helicopters (Bell 407 and 206) that carry three to six passengers and less water. They can be used for any mission that the rangers perform fire, law enforcement, search-and-rescue, OIT communication towers, IF&W moose surveys, etc.
- Three aging fixed-wing aircraft- Cessna L-19, C-180, C-185 (1952-1980) on wheels, skis, and floats used for fire patrol, surveys, and transportation.

There is no specific end date or life limit to the Huey airframes, but at some point, it won't be viable to operate 65-year-old helicopters. The Forest Service began the process of replacing the Hueys in the early 2,000's by purchasing a Bell 407. Modernization of the fleet must continue before there is a need to ground the Hueys for maintenance and safety issues.

Plan to modernize the fleet:

- Purchase two used but modern Bell 407 helicopters and modify them for fire use, providing hooks, sliding doors, VHF-FM radios, etc.
- Dismantle the two Hueys that haven't been overhauled for parts, storing the engines, transmissions, and rotor systems for later use.
- Modify the three overhauled Hueys to left seat drive with FastFin tail booms and strakes, providing additional power and tail rotor authority at high altitudes and high temperatures while reducing strain and metal fatigue on the tail booms.
- Purchase two used but modern Cessna 206's to replace the C-180 and C-185.
- Sell the Bell 206 and C-185. Turn the C-180 back into the U.S. Forest Service.



Cost of modernizing the fleet:

•	Purchase of two modern, used Bell 407	\$5 MM
•	Upgrading the three remaining Hueys	\$0.74 M
•	Upgrading the Bell 407	\$0.26 M
•	Purchase of modern, used Cessna 206 on floats	\$0.5 M
•	Purchase of modern, used Cessna 206 on wheels	\$0.4 M
•	Sale of Jet Ranger and C-185	(\$0.54 M)

Total **\$6.36 MM**

Selling those aircraft and turning in the older, federally owned aircraft will bring the fleet's complexity down to only four different types of aircraft.