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Sommario/riassunto	"An aging fleet of contracted fixed-wing airtankers and two fatal crashes in 2002 led the U.S. Forest Service to investigate how to recapitalize its fleet of airtankers. The Forest Service asked RAND for assistance in determining the composition of a fleet of airtankers, scoopers, and helicopters that would minimize the total social costs of wildfires, including the cost of large fires and aircraft costs. The research team developed two separate but complementary models to estimate the optimal social cost-minimizing portfolio of initial attack aircraft -- that is, aircraft that support on-the-ground firefighters in containing a potentially costly fire while it is still small. The National Model allocates aircraft at the national level, incorporating data on ten years of historical wildfires, and the Local Resources Model provides a more nuanced view of the effect of locally available firefighting resources, relying on resource allocation data from the Forest Service's Fire Program Analysis system. Both models favor a fleet mix dominated by water-carrying scoopers, with a niche role for retardant-carrying airtankers. Although scoopers require proximity to an accessible body of water, they have two advantages: shorter cycle times to drop water and lower cost. Two uncertainties could affect the overall optimal fleet

size, however: future improvements in the dispatch of aircraft to fires and the value attributed to fighting already-large fires with aircraft."--P. [4] of cover.