Accepted Manuscript

An Exact Branch-and-Price Algorithm for Scheduling Rescue Units during Disaster Response

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PII: S0377-2217(18)30533-2
DOI: 10.1016/j.ejor.2018.06.010
Reference: EOR 15195

To appear in: *European Journal of Operational Research*

Received date: 15 July 2017
Revised date: 1 June 2018
Accepted date: 5 June 2018

Please cite this article as: Gerhard Rauchecker, Guido Schryen, An Exact Branch-and-Price Algorithm for Scheduling Rescue Units during Disaster Response, *European Journal of Operational Research* (2018), doi: 10.1016/j.ejor.2018.06.010

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Highlights

- A branch-and-price algorithm for scheduling collaborative rescue units is proposed.
- The algorithm can be used as an exact or heuristic procedure when time is scarce.
- The algorithm substantially improves existing algorithms in terms of effectiveness.
- The algorithm calculates solutions close to the optimal solution within minutes.
- Execution times statistically significantly depend on model parameter values.

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