

Validation of Controller Workload Predictors at Conventional and Remote Towers

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Abstract— We do a field study on controller workload in a conventional tower and a Remote Tower environment (in both single and multiple mode) and give a proof of concept for the validation of indicators on their workload predictability. We analyze the number of ATCO tasks (e.g., arrivals, taxi), the communication times related to different ATCO tasks (and use them as weights for the ATCO tasks), and reaction times to SPAM queries. We show that—while the pure number of ATCO tasks is not a necessary condition for an increase in workload rating—indicators that integrate the communication time related to these ATCO tasks are, that is, each increase in workload rating is accompanied by an increase in these indicators.