Since January 2004, a new set of laws applies to the selection and classification of applicants for the Belgian Military. For classification purposes, it was decided to use a Sequential Parallel Assignment method. The method includes the computation of aptitude scores for each entry a candidate is applying for and offers the possibility that a selection board accepts an applicant who does not meet all standards. The paper will first present this new method along with the software that was developed to implement it. Next, the methodological foundations of the system will be put under scrutiny. A number of crucial problems will be identified and possible solutions proposed. Finally, data driven evidence will illustrate the consequences of the choice that was made for this sub-optimal method. The conclusions identify three weaknesses of the method: the measurement level of applicant preferences, the lack of degrees of freedom to optimize the assignment solution and the poor integration of aptitude estimates and preferences. Comparison with alternatives shows that the used method yields lower numbers, lower aptitudes and lower preferences than available smarter allocation systems.