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SUBORBITAL AEROSPACE PASSENGERS TRAINING CERTIFICATION

Abstract

Between $600 million and 1.6$ billion in revenue in the first decade of operations, forecasts of 370 seat/cargo equivalents per year in the first year of operations, growing to 500 per year in the 10th year, for a total of 4,518 over 10 years [1]; those thrilling numbers testify to the interesting future of commercial suborbital spaceflight within the next years, and explains the recent budding of specialized companies. These predictions from market specialists appear very exciting , but only reflect the best case scenario. Indeed profits as well as future of the activity hugely depend on the anticipated sequences of events. In order to preserve a optimistic growth perspective, broadening the market beyond adventurous early adopters, the focus should be laid on an absolute success of early flights. This could be safeguarded, as a first step, by key companies accepting some self-evident notions. Commercial Suborbital Aerospace Passenger candidates, by definition non-professional astronauts, will challenge aerospace physicians with unknowns regarding physiological or safety concerns during training and flight, and highlight crucial ethical and risk-assessment problems. The experience and expertise gathered during the early phase of the commercial suborbital flight activities will provide important data for the evaluation and handling of medical problems that space programs have not yet addressed systematically and may improve the medical preparedness of the candidates. Thus there is a need for the companies to train the first passengers accurately, and homogeneously amongst the competitors. In this perspective, it might be interesting for the suborbital flight provider companies to adopt similar standards for the first generation of flyers, in order to protect their activity in many ways. The PASI-Professional Association of Space Instructors integrating relevant authorities representatives, Space and aviation physiology experts, training experts and potentially law and insurance professionals would represent an entity dedicated to ensuring the excellence of the activity by delivering a label-like safety and quality certification. Such an organization would issue minimum guidelines and rules regarding medical requirements and training to which each member would abide. In addition to the protection of the business, such an entity could potentially preserve limited liability for the companies.