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*ABSTRACT*

**Transport Canada Personality Profile 2:  
Validity, reliability, and applications.**

Emergency evacuations of an aircraft cabin are effected by three main factors: aircraft, environment, and human factors. While methods of testing the impact of the aircraft and environment are well developed, relatively few methods have been developed to determine the human factors impact. The Transport Canada Personality Profile 2 (TCPP2) was developed to determine the potential impact of personality characteristics on emergency aircraft cabin evacuations.

The TCPP2 quantifies 13 personality characteristics believed, a priori, to have a potential to effect evacuations. The reliability, based on a 10 day test-retest protocol, of the TCPP2 exhibited a mean coefficient of reliability (stability) of 0.91. The reliabilities of the individual characteristics ranged from 0.82 to 0.97.

Validity was determined by a concurrent criterion protocol. Reference criteria were Cattell's 16 Personality Factor Questionnaire (16PF) and the Jackson Personality Inventory-Revised (JPI-R). The TCPP2 exhibited a good validity against each of the two reference criteria. The concurrent criteria validation of the TCPP2 compared very favorably with the validation of the two reference criteria (16PF and JPI-R) with each other in the same sample of subjects.

In one series of simulated emergency evacuation trials, TCPP2 characteristics of "assertiveness" and "goal-directed" appeared to have a significant impact on evacuation times ( $p < 0.0009$  and  $P < 0.0002$  respectively). A decrease in evacuation times was associated with an increase in group "assertiveness" and "goal-directed" characteristics. Projections, based on these results, onto a passenger load of 150, the groups with higher "assertiveness" (16.0) and "goal-directed" (12.8) averages would have a total evacuation time of 3.08 minutes. The groups with lower "assertiveness" (14.7) and "goal-directed" (11.5) averages would have a total evacuation time of 3.58 minutes.