



1. Transport Canada Publication No. <b>TP 14720E</b>		2. Project No.		3. Recipient's Catalogue No.	
4. Title and Subtitle <b>Effect of Heat on Fluid Endurance Times Using Composite Surfaces</b>				5. Publication Date	
				6. Performing Organization Document No. <b>CM2020.002</b>	
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				11. PWGSC or Transport Canada Contract No.	
12. Sponsoring Agency Name and Address <b>Transportation Development Centre (TDC) 800 René Lévesque Blvd. West, Suite 600 Montreal, Quebec H3B 1X9 Canada</b>				13. Type of Publication and Period Covered <b>Draft</b>	
				14. Project Officer <b>Barry B. Myers</b>	
15. Supplementary Notes (Funding programs, titles of related publications, etc.) Several research reports for testing of de/anti-icing technologies were produced for previous winters on behalf of Transport Canada. These are available from the Transportation Development Centre (TDC). Nine reports (including this one) were produced as part of this winter's research program. Their subject matter is outlined in the preface. This research project has been funded by the Civil Aviation Group of Transport Canada.					
16. Abstract <p>The objective of this study was to investigate the effect of heat on fluid endurance measured on aluminum and non-aluminum surfaces. To satisfy this objective, comparative tests were conducted during the winter of 2005-06 to evaluate the differences. Testing was conducted during natural snow and simulated freezing precipitation conditions. Additional testing was conducted in natural frost conditions.</p> <p>Data from the comparative tests performed during the winter of 2005-06 were analyzed. The comparative tests conducted using Type II and Type IV fluids during natural snow and freezing precipitation conditions indicated that, on average, the endurance time measured using the composite test plates were similar to the endurance time measured using the aluminum test plate. The results also indicated that during Type I fluid testing in natural snow, simulated freezing precipitation, and natural frost, the measured endurance times using white painted composite test plates were shorter than the endurance time measured using white painted aluminum test plates.</p> <p>As a result of these findings, additional Type I fluid testing using composite leading edge thermal equivalent surfaces is required to correlate these differences against the standard surfaces that are used to obtain HOTS and to substantiate any possible reduction in measured endurance time.</p>					
17. Key Words <b>Deicing, Snowfall Intensity, Holdover Time, Composite,</b>			18. Distribution Statement <b>Limited number of copies available from the Transportation Development Centre</b>		
19. Security Classification (of this publication) <b>Unclassified</b>		20. Security Classification (of this page) <b>Unclassified</b>		21. Declassification (date)	22. No. of Pages <b>xvi, 68 app</b>
					23. Price <b>—</b>