

Appendix IV

EXECUTIVE SUMMARY

**ASPHALT SURFACE TREATMENTS**  
**SEPTEMBER 24 – OCTOBER 10 1999**

15 WING MOOSE JAW  
SASKATCHEWAN

PROJECT AUTHORITY:

DEPARTMENT OF NATIONAL DEFENCE  
1 CANADIAN AIR DIVISION HEADQUARTERS

A4 AIRFIELD ENGINEERING



## Appendix IV (continued)

### Executive Summary

The asphalt pavements at 15 Wing Moose Jaw, due to a miss out on the funding cycle, was beyond its service life and starting to show excessive wear. Excessive loss of fines causes popouts thus raising FOD concerns for aircraft operations. Severe Canadian winter conditions combined with an aggressive snow removal program caused concerns as to whether the asphalt surfaces could remain intact after another winter major rehabilitation. Coal tar rejuvenation test sections performed three years previously indicated the treated surface is stable. Therefore it was decided to treat the surface using a coal tar mixture that would penetrate the pavement and bind the pavement together.

Our studies indicated the rejuvenation process is an efficient and cost effective method adding time to an existing pavement. RejuvaSeal was chosen for Moose Jaw because of best value. The material was applied over two weekends to allow half the airfield to cure while the other half remained operational. The material cures in a 24-hour period above 10°C with sand coating applied to maintain the friction. Quality control tests were performed before and after the application to ensure the operational standard was met. The Grip Tester results show that on Runway 11R-29L at the 3m left and right intervals the friction actually increased after application. Runway 11L-29R showed that after the application the friction rises on average about 0.05. The sand patch and outflow meter tests show that the microtexture and macrotexture significantly improved.

The RejuvaSeal process is a fast and easy method of rejuvenating a pavement and is very effective in improving surface texture and friction, as can be seen from the obtained results. This procedure is recommended for future use in other DND asphalt surface treatment projects.

# 加拿大国防部 空军第一师总部 (中文译文)

## 执行测试概论

### 沥青路面处理剂

1999年9月24日-10月10日

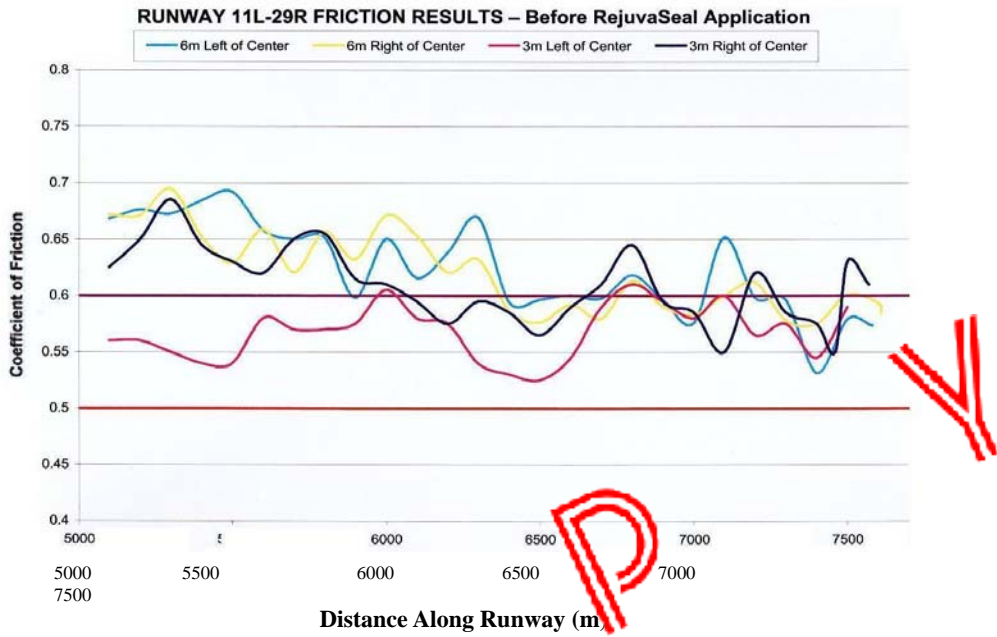
因错过拨款周期关系，在 15 Wing Moose Jaw 的沥青路面已经超过其正常服务年限，并开始出现过度磨损。过量的表面颗粒松脱，令人担心飞机的飞行安全。加拿大冬季恶劣的气候条件加上道路经常性清除积雪更让人担心沥青表面能否保持完好。由三年前开始进行的煤沥青再生试验显示经处理过的表面仍保持完好。因此决定使用这种具有渗透性和能重新粘结道路的煤焦油混合剂来处理整个表面。

我们的研究发现沥青再生是一种延长道路寿命的非常有效率及容易控制成本的方法。Moose Jaw 挑选了 [沥再生]<sup>TM</sup> 是因为它最为有效。我们分别挑选了两个周末来喷涂材料，以使机场的一半在进行喷涂时另一半仍能保持开放。材料在温度 10 °C 以上施用并在 24 小时内稳固，在路面上亦覆盖有细砂以保持磨擦力。为了保证达到运行标准，在喷涂材料前后均进行了质量控制测试。粘着力测试结果显示在跑道 11 R - 29 L 左右三米处区间磨擦系数在处理后的显著增加。跑道 11 L - 29 R 测试显示在处理后的磨擦系数平均提高约 0.05。覆沙段和超出段测试显示微、宏观构造都是显著提高。

从以上获得的测试结果表明用沥青再生密封剂使沥青道路再生，并能有效改善表面构造和磨擦力的一种快捷、简易方法，值得谨推荐该产品将来作为国防部其它沥青道路维护计划。

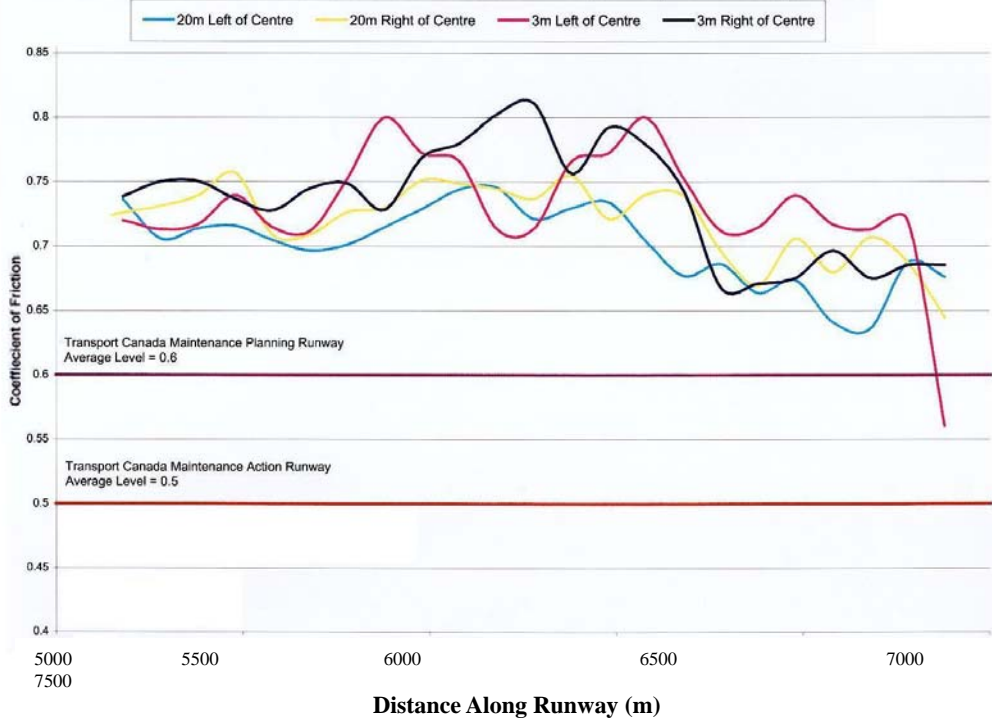
附件 IV (续)

于 11R-29L 跑道之磨擦力测试结果 - 施用 [沥再生]<sup>TM</sup>



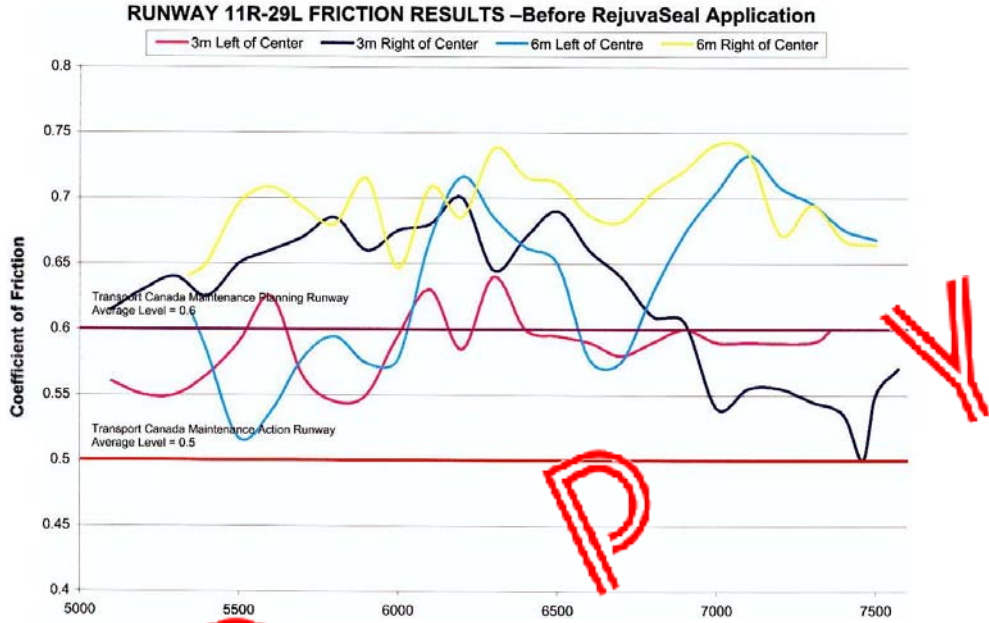
于 11R-29L 跑道之磨擦力测试结果 - 施用 [沥再生]<sup>TM</sup> 后

**RUNWAY 11L-29R FRICTION RESULTS - After RejuvaSeal Application**



附件 IV (續)

于 11R-29L 跑道之磨擦力测试结果 – 施用[沥再生]<sup>TM</sup>前



于 11R-29L 跑道之磨擦力测试结果 – 施用[沥再生]<sup>TM</sup>后

