## **ATTACHMENT #3**

Ms. Pat Oien P.E. FAA Project Manager Alaska Region, Airports Division Federal Aviation Administration 222 W. 7<sup>th</sup> Ave. #14 Anchorage, AK 99513-7587

March 31, 2006

Dear Ms. Oien,

Thank you for the opportunity to provide input on the FAA's recent proposal for a modified Runway Safety Area alternative at Juneau Airport.

We reviewed the information you provided in your 3/22/06 letter and attached RSA alternative sketch (JNU RSA Graphic.pdf) and analyzed the operational impacts of the proposal.

The proposed configuration provides landing distances of 8,057 feet. This distance is sufficient to allow max landing weight for all of our airplane types. That is, we can legally dispatch flights using this landing distance up to our maximum landing weight. However, the regulations only address wet-runways by applying a standard multiplier; they do not address landing on slippery runways.

Recent industry accidents have caused increased emphasis on the consideration of reduced braking action when assessing the landing distance available. In this regard airlines are being encouraged to use non-regulatory data, which includes the effects of reduced braking action, to determine if a landing should be attempted.

Using declared distance RSAs, and at the same time, operational landing weight restrictions, has a compounding effect; simultaneously reducing the runway available while increasing the runway required.

The attached file "900PEMLanding.pdf" shows the Advisory Landing Performance on Slippery Runways for the B737-900. As mentioned above, the FAR Dry and FAR Wet required landing distances are sufficiently within the proposed landing distance at JNU. Added to the PEM pages are lines depicting Alaska Airlines' policy regarding landing on runways with reduced braking action. Note that with Poor braking action, the airplane would not be able to achieve maximum landing weight of 146,300 lbs., which would cause a diversion to an alternate airport. If this became a probable scenario, i.e. the runway frequently had Poor braking action; the effect would be a reduction in the maximum weight capability we plan for when flying to JNU.

As can be seen in the attached PEM graph, the only time landing distance would be a concern to us is when the runway braking action degrades to poor. This can largely be avoided if the airport has an effective program to clear the runway of snow, slush and ice - something we emphasize at all our airports where this could be an issue.

There has been some discussion in the e-mails between FAA, ASA and JNU Airport staff regarding taxiway configuration and the need to back-taxi in order to use the full length of the runway. This situation would not be unique to Juneau. Nevertheless, it would increase our taxi times, and the time we are on the runway, possibly reducing the frequency of operations and the capacity of the airport. This is something we want to avoid. If the existing runway entrance points were maintained, the need to back taxi will be low.

As we have stated before, Alaska Airlines is very concerned about the precedence of reducing the usable runway length at Juneau. Maintaining the existing usable runway lengths is critical to allow viable, economic operations into many airports in the State of Alaska. Shortening the usable distance of the runway always increases the risk of operational restrictions. However, with Winter Operations Plans that keep braking action Fair or better, and existing runway entrance points maintained, the proposed modified RSA Alternative appears to be adequate for the majority of our operations.

We understand you plan to meet with the Juneau Airport Board in early April. If you or the Airport Board have any questions about the enclosed information, please let me know.

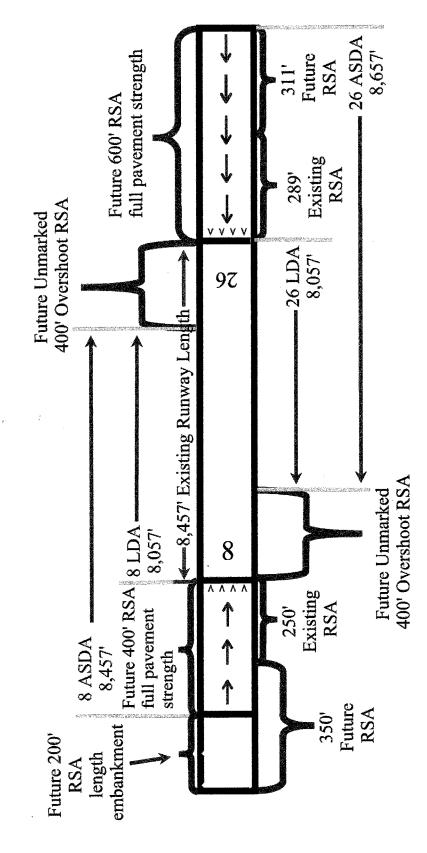
Sincerely,

Lynae Jacobson Manager, Air Traffic & Airfield Operations

Enclosures (2)

Cc: Alan Hesse, Juneau Airport Manager Carl Allen, Kathy Smith – Alaska Airlines

# Juneau Declared Distances Sketch



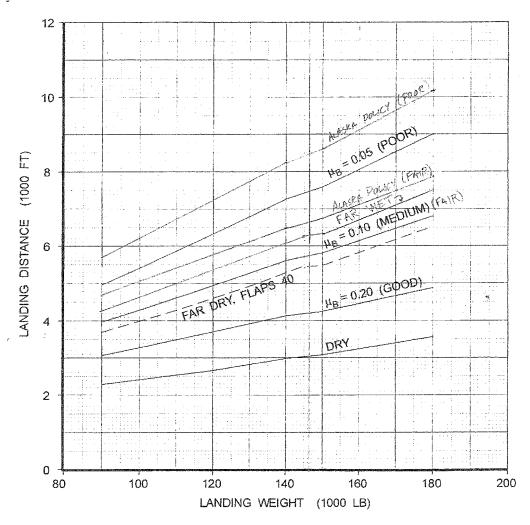
Existing Runway length = 8,457'
Future 8 Landing Distance Available (LDA) = 8,057'
Future 8 Accelerate Stop Distance Available (ASDA) = 8,457'
Future 26 LDA = 8,057'
Future 26 ASDA = 8,657'



# ADVISORY INFORMATION ALL ENGINES

# Landing Performance On Slippery Runways

Flaps 40
Maximum Manual Braking
2 Engines at Detent Reverse Thrust
Approach Speed = VREF<sub>40</sub>
Touchdown 1000 FT from Approach End of Runway
Standard Day



### **Landing Distance Corrections**

$\mu_{\mathbf{B}}$	REPORTED BRAKING ACTION	CORRECTION PER 1000 FT ABOVE SEA LEVEL (FT)
0.05	Poor	220
0.10	Medium	150
€ 20	Good	100
	Dry	60

Note: Manufacturer's terminology "Medium" reported braking action translates to "Fair" reported braking action in operational data sources.