

HJR

33

# FISCAL NOTE

STATE OF ALASKA  
1997 LEGISLATIVE SESSION

BILL NO. HJR 33

Revision Date: \_\_\_\_\_ Dept. Affected: DOT & PF  
 Title: Fax Approval of Tundra Tires BRU: \_\_\_\_\_  
 Component: \_\_\_\_\_  
 Sponsor: House Transportation  
 Requester: House Transportation COMPONENT SERIAL NO. \_\_\_\_\_

**Expenditures/Revenues** (Thousands of Dollars)

OPERATING EXPENDITURES	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
<b>TOTAL OPERATING</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

CAPITAL EXPENDITURES						
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CHANGE IN REVENUES ( )						
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**FUND SOURCE** (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other						
<b>TOTAL</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

Estimate of any current year (FY97) cost: \$ \_\_\_\_\_

**POSITIONS**

FULL-TIME						
PART-TIME						
TEMPORARY						

**ANALYSIS:** (Attach a separate page if necessary)

Prepared by: Pete Ecklund  
 Division: House Transportation  
 Approved by Commissioner: William K. Williams  
 Agency: Chair, House Transportation

Phone: 465-3424  
 Date: 4/3/97  
 Date: 4/3/97

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## Sponsor Statement HJR 33

HJR 33 was introduced in response to a recent Federal Aviation Administration rule discontinuing the practice of allowing Aviation Safety Inspectors to issue field approvals for planes equipped with tundra tires.

Tundra tires are common equipment on many light aircraft throughout Alaska and are essentially a matter of safety in many flight situations over much of the State. Many of Alaska's rural airports and other flight destinations do not offer the niceties provided by modern airports with paved runways. Many rural airports have to get by with gravel strips built with less than desirable materials causing such hazards as potholes and large rocks from the subgrade. These conditions are dangerous when planes utilizing standard gear land or takeoff on such runways. Tundra tires play an important part in allowing safe operations in those conditions.

There are also large areas of Alaska that would not be accessible by planes without tundra tires. Many Alaskans have traditionally traveled to many remote areas of the state and can safely do so due to the use of tundra tires. Many rivers have gravel bars upon which planes equipped with tundra tires can land safely.

In conducting tests for the use of tundra tire equipped planes, the FAA found that there was no appreciable safety problems associated with tundra tires. That being the case it appears unreasonable for them to institute a program basically denying Alaskans the use of these types of tires.

The use of tundra tires has a long tradition in Alaskan aviation history. Their use has allowed Alaskans to pioneer the remote reaches of Alaska and to continue to access those areas safely. HJR 33 is needed to allow that tradition to continue.

Sponsor Statement

the Anchorage Federal Building. Please, do this well in advance of modifying your airplane. The certification process is straight forward but it usually cannot be completed overnight. In this meeting we can discuss the implications of your modification and what types of testing and/or engineering data that will be required. We can also provide you with a more detailed guide to the STC process than the general information that you will get from this article. At the end of this meeting, you can submit an application for your modification and we will assign a project number and an engineer to your project. If you can't come in to our office, we can discuss this over the phone and we will mail the information to you. Our phone number is (907) 271-2668.

Second, you will need to describe, in writing, drawings, and photographs, how the modification is made. What separates a "multiple" STC from a "one-only" STC is basically the quality of the descriptive information. If your plans are only to modify one airplane, you can describe it using sketches and photographs. If you want to sell this STC to others so that they can make the same modification, this requires engineering drawings and installation/modification information with sufficient detail to allow someone else to make the same modification without error. Third, you will be required to show that the airplane still meets the original certification standards after the modification has been performed. This means to modify a PA-18 you must show that the airplane still meets the design certification requirements that were in place in 1949. We (that's you and the FAA engineer) will evaluate your modification to determine what certification regulations could be affected by your modification. Once we determine which regulation sections need to be addressed you will need to prove through tests and/or engineering analysis, that the altered aircraft still meets the affected original certification standards. The FAA will check the information you provide, and if all looks good, we will issue you an STC. With this STC and a completed FAA Form 337 your IA can return your airplane to service.

For the first timers, or for the more complex modifications we recommend that you hire a Designated Engineering Representative. These individuals can speed the process significantly. They have been through the STC approval process and

have the authority to approve certain engineering data for the FAA. We can provide you a list of qualified Designated Engineering Representatives to assist with your alteration approval.

If you decide that you want to market your Supplemental Type Certificated modification and supply parts that you manufacture there are a few more steps involved. You will need to get a Parts Manufacture Approval. We can discuss those requirements during your initial visit.

Sometimes simple modifications may be more complex than they seem on the surface. The owner of a newly purchased airplane decided it needed a door lock. He went to the local hardware store, bought a lock, and installed it. That afternoon he went flying. When he got back to the airport later that evening and tried to get out of his airplane he was quite surprised. The door lock was designed to automatically

lock when the door was closed and there was no way to unlock it from the inside. Three hours later his wife came looking for him and unlocked the door. He thought about calling the Flight Service Station for help but couldn't bring himself to tell them that he locked himself in his airplane. He was lucky, if he had crashed or had a carburetor fire while starting his airplane this would have been a more serious mistake. The major alteration process is in place so that we can improve our airplanes safely. Remember, the design standards of the FAA are to provide us with a minimum level of safety. Those standards have come about through years of aviation experience. Using them can save your life.

By August A. Asay  
Aviation Safety Engineer for the  
Anchorage Aircraft Certification Office,  
FAA

STATUS OF TUNDRA TIRE FIELD APPROVALS ON LIGHT AIRCRAFT IN ALASKA

Currently national guidance prohibits Aviation Safety Inspectors from approving the installation of tires that are not approved by either the aircraft's type certificate, or by the Supplemental Type Certificate (STC) process. At the present time, individuals who wish to install tundra tires on their aircraft should follow guidance Advisory Circular, AC 23.733-1, and are required to work with the Federal Aviation Administration's (FAA's) Aircraft Certification Office (ACO).

Presently the Alaskan Region Flight Standards Division is working with the FAA Headquarters to modify the new process. During the week of March 31, 1997, Richard Gordon, the Alaska Regional Flight Standards Division Manager, will travel to Washington D.C. to work to resolve the issue.

History - Because of numerous low altitude stall/spin accidents with aircraft modified with tundra tires, the National Transportation Safety Board (NTSB) issued a safety recommendation dated February 7, 1995. One of the recommendations was to review the tundra tire field approval process. To comply with the NTSB's recommendations the FAA issued AC 23.733-1, tundra tires, on 10/10/96. In addition a Handbook Bulletin was issued to the Airworthiness Inspectors Handbook, 97-01, outlining the approval process of tundra tires on aircraft. Both of these documents presently limit the ability of individual aviation safety inspector to field approve tundra tires.

To: Eddie Grasser  
465-4822

ORDER: 8300.10

APPENDIX: 3

BULLETIN TYPE: Flight Standards Handbook Bulletin  
for Airworthiness (HBAW)

BULLETIN NUMBER: HBAW 97-01

BULLETIN TITLE: Approval Criteria for Tundra Tire  
Installations

EFFECTIVE DATE: 01-21-97

TRACKING NUMBER NTSB Recommendation A-95-13

1. PURPOSE. To inform all Flight Standards Field Office Managers, Supervisors, and Aviation Safety Inspectors (ASI)(airworthiness), that ASI'S are no longer authorized to issue Field Approvals for tundra tire installations.

2. BACKGROUND This handbook bulletin is in response to the FAA Administrator's September 6, 1996 decision to close out the National Transportation Safety Board (NTSB) safety recommendation A-95-13 dated, February 7, 1995. The NTSB'S safety recommendation raised safety concerns about tundra tire equipped aircraft.

3. DISCUSSION. Because of numerous low altitude, stall/spin accidents with aircraft modified with tundra tires, the NTSB issued safety recommendation A-95-13 dated, February 7, 1995. The NTSB's safety recommendation asked the FAA to perform flight tests with an aircraft equipped with tundra tires and investigate the tundra tire field approval process. Some tundra tire field approvals were issued without requiring the owner/operator to perform a flight test or supply other data on the aerodynamic effects of the larger tires and wheels.

A. FAA flight tests that were completed in April 1995, found that the effects of a tundra tire installation regarding handling and stall characteristics on the test aircraft (Piper PA-150), to be either negligible or within satisfactory limits, and did not represent a hazard to safety. Additional flight tests on the aircraft with even larger tundra tires found similar results.

B. The major cause of tundra tire equipped aircraft accidents appeared to be pilot error. The most common accident scenario

FAA Bulletin

was the pilot allowing the airspeed to drop, in a steep turn, with his or her attention focused outside of the cockpit. Other stall/spin accidents with tundra tires were caused by operators of PA-18 150, who, without FAA approval, removed the 2.5 degrees of washout at each wing tip.

C. To close out the NTSB's safety recommendation the FAA Administrator made two decisions.

(1) His first decision was for the FAA to issue an advisory circular (AC) on Tundra Tires. This was accomplished on October 10, 1996 when AC 23.733-1, Tundra Tires was published. The AC covers the result of the FAA tundra tires flight tests, and identifies possible hazards with a tundra tire installation. The last section of the AC provides general information about the certification process and provides a compliance checklist for aircraft that has a Civil Air Regulation (CAR) Part 3 Certification Basis.

(2) The Administrator's second decision was to prohibit Flight Standards district office ASTs from field-approved tundra tire installations.

4. ACTION. ASTs are no longer authorized to approve tundra tire installations using the field approval process. Individuals who wish to install tundra tires on their aircraft should be directed to AC 23.733-1, Tundra Tire and given the address and telephone number of the nearest Aircraft Certification Office.

5. INQUIRIES. This bulletin was developed by AFS-340. Any questions concerning this bulletin should be directed to AFS-340 at (202) 267-3796.

6. LOCATION. The material in this bulletin will be incorporated in FAA Order 8100.10 volume 2, chapter 1, paragraph 7, Perform Field Approval of Major Repairs and Major Alterations, to reflect this handbook bulletin in the next revision of the Order.

/s/ David E. Hegy  
Acting Manager, Aircraft Maintenance Division

**CS FOR HOUSE JOINT RESOLUTION NO. 33(TRA)  
IN THE LEGISLATURE OF THE STATE OF ALASKA  
TWENTIETH LEGISLATURE - FIRST SESSION**

**BY THE HOUSE TRANSPORTATION COMMITTEE**

**Offered:  
Referred:**

**Sponsor(s): HOUSE TRANSPORTATION COMMITTEE**

**A RESOLUTION**

**1 Relating to Federal Aviation Administration approval of installations of tundra tires  
2 on aircraft.**

**3 BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:**

**4 WHEREAS, after January 21, 1997, the Federal Aviation Administration no longer  
5 allows aviation safety inspectors to issue field approvals for installation of tundra tires on  
6 aircraft; and**

**7 WHEREAS persons who wish to install tundra tires on their aircraft must now contact  
8 an aircraft certification office to obtain approval for the installation of tundra tires; and**

**9 WHEREAS tests conducted by the Federal Aviation Administration demonstrated that  
10 the installation of tundra tires on aircraft had either negligible effects or acceptable effects on  
11 aircraft handling and stall characteristics; and**

**12 WHEREAS the Federal Aviation Administration has determined that the installation  
13 of tundra tires on aircraft does not represent a hazard to safety; and**

**14 WHEREAS the Federal Aviation Administration has determined that the major cause  
15 of aircraft accidents involving aircraft with tundra tires is pilot error; and**

**16 WHEREAS discontinuing the former practice of allowing field approval of tundra tire**

1 installations will not improve air safety but will cause significant inconvenience to pilots in  
2 Alaska; and

3         **WHEREAS** the use of tundra tires has allowed Alaskans to pioneer the remote areas  
4 of Alaska and to access those areas much more safely than through the use of standard  
5 aviation tires;

6         **BE IT RESOLVED** that the Alaska State Legislature respectfully requests the Federal  
7 Aviation Administration to reinstitute the practice of allowing aviation safety inspectors to  
8 issue field approvals for tundra tire installation.

9         **COPIES** of this resolution shall be sent to the Honorable Rodney E. Slater, Secretary,  
10 U.S. Department of Transportation; the Honorable Barry L. Valentine, Acting Administrator,  
11 Federal Aviation Administration, U.S. Department of Transportation; and to the Honorable Ted  
12 Stevens and the Honorable Frank Murkowski, U.S. Senators, and the Honorable Don Young,  
13 U.S. Representative, members of the Alaska delegation in Congress.