

HB

479

RECEIVED
JAN 6 1986

January 3, 1986

Senator Bill Ray
Representative Duncan
Representative Miller
P.O. Box V
State Capitol
Juneau, Alaska 99811

Re: State of Alaska
(Alternative energy Loans)

Dear Senator and Representatives:

We are soon providing an alternative to wood burning stoves in the Juneau area and I understand that this is presently available in Anchorage.

Our product is a pelletized wood and other fuel which burns in specially constructed stoves and burns smoke free.

I am enclosing a couple of articles for your further information.

To meet new ordinances in Juneau, many people will have to replace their wood burning stoves.

I understand that under present law, Alternative Energy Loans are available for catalytic equipped wood stoves, or catalytic converters.

Therefore it would be appreciated if the present law could be amended to authorize loans for biomass pellet fuel burning stoves or furnaces.

Steve Gilbertson, Juneau's Air Quality Control Officer, advised me that he and D.E.C. officials are in favor of this amendment.

I believe the law in question is included in A.S.45.88.010:500.

If you would like further information regarding this, I will be happy to discuss what I have with you.

Thanking you in advance for your consideration.

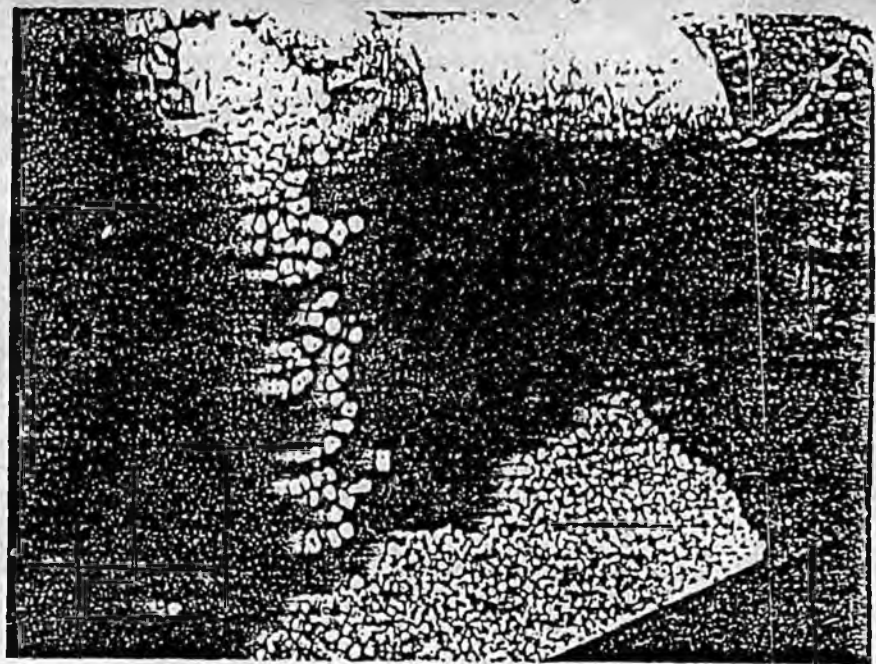
Very truly yours,

Larry Traeger
Larry Traeger
546 Hemlock
Juneau, Alaska 99801

Phone: 586 3250

Heating homes with pellets

Mount Angel manufacturer designs and sells innovative, affordable furnaces



By DALE STOWELL,
Of the Independent

MOUNT ANGEL — Handy Traeger shrugs as he considers the complexity of his pelletized wood burning furnace designs.

"To me, it don't look like nothing super," he says. "Once you've horded around with it for 15 years, it doesn't seem like that much."

But he seems to know he's on to something as he cites statistics that indicate his wood furnaces burn cleaner than do natural gas or oil furnaces for as little as half the cost for fuel.

Traeger, owner and president of Traeger Industries, has been designing woodstoves and furnaces for more than 20 years and is optimistic that his latest design will catch on.

The fuel source is the most novel aspect of the new furnaces, which have been on the market since fall. Biomass pellets, produced from waste products such as pine shavings or rye stubble, are what the newly designed heating devices consume.

One ton of pellets, which costs about \$100, produces as much heat as two cords of wood but leaves substantially less waste. About 6 of one percent of the pellets remain as ash — approximately two gallons of ash per ton of fuel.

During cold weather, the average home requires about one 50 pound bag per day, Traeger estimated. Average yearly consumption would be in the neighborhood of four tons, he added.

Traeger's thermostatically-controlled stove and furnace designs also attempt to transfer all of the heat produced in the units to the space in the home to be heated.

And Traeger points out another advantage to the pellet-burning systems. "They burn clean. There isn't any smoke. You can stick your nose right in the (smoke)stack."

The major drawback is availability of fuel. Traeger has several hundred tons of it stockpiled to meet the needs of customers who have purchased pellet-burning equipment. It isn't readily available anywhere else in the area.

The fuel, which resembles rabbit food pellets, has existed for several decades, Traeger said. But companies producing it have come and gone due to a lack of demand.



Randy Traeger (above) has designed and is marketing heating systems which burn pine pellets (top photo). Traeger says the new heating units burn cleaner than gas or oil at nearly half the cost for fuel. (Photos by Dale Stowell)

"There's been several plants that have been around and gone broke," he said. "There's the concept of making pelletized fuel. That's fine. But you've got to have something to burn it in. Most of them are looking at commercial applications, but a commercial application can dry up on you very quickly — just a little change in price and they'll switch from one (fuel) to the other."

Before Traeger's design, availability of fuel wasn't the only problem in home-heating pellet applications. In earlier designs, the pellets didn't burn completely, and the furnace

fire would sometimes burn back into the fuel hopper.

Traeger cured the problems without knowing what caused them in other furnaces. "I really didn't look at anybody's design," he said. "I never paid any attention to them. There's no use in reinventing the wheel over again. It was a matter of taking it apart and putting it together again, taking it apart and putting it together again."

After Traeger put it together again, and it worked to his satisfaction, he began developing different home heating uses. His designs range from an indoor furnace that produces nothing but home heat, to an outdoor "pellet pump" that will provide heat for home, hot water and even clothes drying. All of the Traeger Industries products are built at the company shop in Mount Angel.

The furnaces are also outside of Department of Environmental Quality regulations that apply to woodstoves. Traeger predicts that many wood stove manufacturers will be forced out of business by continued tightening of regulations for testing and emissions. However, he added pellet-burning furnaces would pass even the most stringent DEQ requirements.

Traeger knows of only five other pelletized fuel furnace manufacturers in the country, but believes that the heat producing devices will increase in popularity in time.

He points to the state of Minnesota as an example of forward thinking about the new heating concept. Traeger, as well as other pelletized-fuel furnace manufacturers, recently donated equipment to the state as part of a Minnesota low-income heating assistance program. The state will pay for installation of the furnaces.

"The concept is, if they give people pelletized fuel, they can heat twice as many homes for the same cost as supplying them money to buy natural gas or oil," Traeger said.

According to Traeger, Minnesota also has state funds available for research and development of pelletized-fuel manufacturing and use. "They're just not after it," he said. "They're way ahead of everyone else."

Back home, Traeger said sales of the new furnaces have been good — almost better than he's wanted them to be. "I really want to go through the winter just testing it, getting a few out," he said. "It's kind of run away from us. It's been super good."



RECEIVED
JAN 13 1986

STATE OF ALASKA
THE LEGISLATURE

POUCH Y STATE CAPITOL
JUNEAU ALASKA 99811
907-465-3800

LEGISLATIVE AFFAIRS AGENCY

MEMORANDUM

January 13, 1986

SUBJECT: Alternative energy loans for biomass
fuel stoves (Work Order 14-1546)

TO: Representative Jim Duncan

FROM: George Utermohle
Legislative Counsel

I.

The draft bill that you requested is attached. The bill amends the definition of "alternative energy system" to expressly include stoves and furnaces that use biomass fuels. The effect of this amendment is to allow the Alternative Energy Revolving Loan Fund to make loans for the purchase of biomass fuel stoves and furnaces.

II.

You also asked whether the Alaska Industrial Development Authority (A.I.D.A.) can aid processors of biomass fuels.

In brief, A.I.D.A. does have the power to make loans, to insure loans, and to assist private lenders to make loans to processors of biomass fuels.

A.I.D.A. was created to provide means of financing and means of facilitating financing for

the establishment, operation, and development of industrial, manufacturing, and business enterprises, including, without limitation, facilities for transportation, facilities for pollution control and waste disposal, facilities for the local furnishing of gas, facilities for water, facilities for industrial parks, mass commuting vehicles, facilities for local district heating or cooling, parking facilities, or a storage or training facility relating to a plant or facility.
(AS 44.88.010(a)(5))

The list of facilities eligible for assistance is only illustrative and in no way restricts the kinds of projects that A.I.D.A. can support.

Provided that a project is located in Alaska and will generate additional employment, A.I.D.A. has the authority to insure loans, to make loans, or to assist private lenders in making loans for the project (AS 44.88.080(12), (13), and (15)). A.I.D.A. defines "project" to include

(A) a plant or facility used or intended for use

(i) in connection with making, processing, preparing, or producing in any manner, goods, products or substances of any kind or nature or in connection with developing or utilizing a natural resource, or extracting, smelting, transporting, converting, assembling or producing in any manner, minerals, raw materials, chemicals, compounds, alloys, fibers, commodities and materials, products or substances of any kind or nature;

(ii) as an industrial park; in connection with transportation; for the prevention, limitation or control of pollution; for the disposal of sewage or solid waste; for the local furnishing of gas; for the furnishing of water; as or in connection with mass commuting vehicles; for local district heating or cooling; as a parking facility; or as a storage or training facility directly related to a plant or facility described in this paragraph;

(B) a plant or facility used or intended for use in connection with a business enterprise;

(C) commercial activity by a small enterprise;
(AS 44.88.220(8))

This definition is broad enough to cover the facilities and equipment necessary to manufacture or produce any form of biomass fuel.

Therefore, processors of biomass fuels are eligible to apply for loans from A.I.D.A. No amendment of the Alaska Industrial Development Authority statutes is necessary.

GU:mkr
M2:020
Enclosure



Official Business

Alaska State Legislature

Senate

Committee on Labor & Commerce

Pouch V
State Capitol
Juneau, Alaska 99811

CSHB 479: SUMMARY

This measure expands statutes on alternative energy systems to include catalytic fireplace inserts, stoves or furnaces that use biomass fuel, and does not include stoves that use only firewood, coal, or oil fuel unless the system has a catalytic converter or catalytic fireplace insert.

CHAIRMAN'S INFORMATION: CSHB 479(L&C)

1) BILL TITLE: "An act relating to biomass fuel systems"

a) Introduced: Rep Duncan

b) Co-sponsors:

2) INTENT: This measure expands the Alternative Energy Loan Fund to include loans for catalytic fireplace inserts, and stoves and furnaces which burn biomass fuels. Also defines what materials are burned in a biomass fuel stove.

FISCAL NOTE: 0

3) ADDITIONAL REFERRALS: Finance and Rules

4) PUBLIC HEARINGS:

a) Sponsor:

b) Public Witnesses:

5) BILL ACTION:

a) Hold in committee?

b) Assign to sub committee for further review?

c) Move from committee?

d) Close public hearings?

6) COMMITTEE ACTION?

a) amendments?

b) CS adoption?

Cary Traeger

Offered: 1/31/86
Referred: House Special Committee on
State Loans and Finance

Original sponsor: Duncan

BY THE LABOR AND
COMMERCE COMMITTEE

1 IN THE HOUSE

2

CS FOR HOUSE BILL NO. 479 (L&C)

3

IN THE LEGISLATURE OF THE STATE OF ALASKA

4

FOURTEENTH LEGISLATURE - SECOND SESSION

5

A BILL

6 For an Act entitled: "An Act relating to biomass fuel systems."

7 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

8 * Section 1. AS 45.88.500(a) is amended to read:

9

(a) In this chapter, "alternative energy system"

10

(1) means a source of thermal, mechanical, or electrical

11

energy which is not dependent on oil or gas or a nuclear fuel for the

12

supply of energy for space heating and cooling, refrigeration and cold

13

storage, electrical power, mechanical power, or the heating of water;

14

(2) includes

15

(A) an alternative energy property as defined by 26

16

U.S.C. 48 (1)(3)(A), (Sec. 301, P.L. 95-618, Internal Revenue

17

Code);

18

(B) a method of architectural design and construction

19

which provides for the collection, storage, and use of direct

20

radiation from the sun;

21

(C) a woodstove with a catalytic converter, [OR] a

22

catalytic converter for a wood stove, or a catalytic fireplace

23

insert; [AND]

24

(D) a steam, hot water, or ducted hot air central

25

heating system that uses wood or coal for fuel; and

26

(E) a stove or furnace that uses biomass fuel produced

27

from any organic matter that is available on a renewable basis,

28

including agricultural crops and agricultural waste and residue,

29

wood waste residue, animal waste, municipal waste, and aquatic

*4.50 - 1 1/2 days
1 ton = 2 cords*

1 plants;

2 (3) does not include, unless described in (2)(C) of this
3 subsection.

4 (A) a stove that uses only firewood [WOOD], coal, or
5 oil for fuel; or

6 (B) a fireplace or fireplace insert.

STATE OF ALASKA 1986 LEGISLATIVE SESSION
FISCAL NOTE

Revision Date: 01/28/86

REQUEST

Bill Resolution No.: HB 479
 Title: An Act Relating to Biomass Fuel Systems
 Sponsor: Representative Duncan
 Requestor: House Labor & Commerce
 Date of Request: _____

FISCAL DETAIL

Agency Affected: Commerce & Economic Dev.
 BRU: Investments
 Components: Economic Development

EXPENDITURES/REVENUES : (Thousands of Dollars)

OPERATING	FY 86	FY 87	FY 88	FY 89	FY 90	FY 91
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	-0-	-0-	-0-	-0-	-0-	-0-
CAPITAL	-0-	-0-	-0-	-0-	-0-	-0-
REVENUE	-0-	-0-	-0-	-0-	-0-	-0-

FUNDING : (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS :

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS : Attach a separate page if necessary

It is anticipated that any new loan demand created as a result of HB 479 will be absorbed within the existing funding available under the Alternative Energy Loan Program. New loan application processing will also be absorbed by existing staff within the division.

Prepared by: Paul B. Arnoldt, Director Phone: 465-2510
 Division: Investments Date: 1/28/86

Approved by Commissioner: Loren H. Lounsbury Date: 1/28/86
 Agency: Commerce & Economic Development

Distribution (by Agency preparing fiscal note):

- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget

ot know it. It's real easy
to with blasting caps," he

caps are small metallic
few inches in length, usu-
d to a length of electrical
ed is suggesting Juneau
p an eye open for such
hair homes. If a blasting
d, Windred recommends
olice to remove it.

led police to several
sting caps and containers
dynamite stored in the
l Windred. Other explo-

sive material was found following a
search of a suspect's bedroom, he
said.

According to Windred, the stolen
blasting caps may be linked to a se-
ries of unexplained explosions in re-
cent months. On Dec. 29, a door at
Floyd Dryden Middle School was
blown open with blasting caps. Sev-
eral area mail boxes may also have
been blown up with the stolen mat-
erial, he said.

Police are investigating possible
violations of laws regulating storage
of explosives at the suspect contrac-

tor's work site. Police will not re-
lease the name of the contractor un-
der investigation until charges are
filed, Windred said.

Meanwhile, two Juneau teen-
agers are expected to be charged
with misconduct involving a weapon
in the first degree following the in-
vestigation into last Friday's bomb
threat at the high school.

According to police, a 14-year-old
student allegedly brought the explo-
sive materials to the school to sell or
give to a 17-year-old male student.

Police have not identified the person
who made the threat.

"Quite a few kids knew this trans-
action was going to take place," said
Windred.

The threat resulted in the closure
of the high school and adjoining Ma-
rie Drake Middle School. Students
were sent home after a search locat-
ed a bag containing four blasting
caps and a two-and-a-half pound con-
tainer of gelatine dynamite in an un-
assigned high school locker.

The material was removed from
the school without incident.

New law allows use of some wood stoves during air alert

Ordinance changes how burning bans are called

By BETSY LONGENBAUGH

THE JUNEAU EMPIRE

There's new hope on the horizon for local residents
who want to keep their wood stoves burning all winter.

Beginning Wednesday, local residents who own
stoves that meet Juneau City-Borough emission stan-
dards may keep their fires burning during wood smoke
alerts.

In the belief that the approved stoves won't let smoke
get in your eyes, the Juneau City-Borough Assembly re-
cently approved an ordinance that allows the stoves to
burn and sets up new criteria for declaring wood smoke
bans.

That new criteria calls for two types of wood smoke
bans - a wood smoke alert and a wood smoke emergen-
cy. Under an alert, owners of approved wood stoves who
have municipal permits may continue to burn. Under an
emergency, no wood stoves are allowed to burn.

Steve Gilbertson, the municipal lands and resources
manager, is in charge of monitoring the air quality of
Mendenhall Valley and enforcing the new ordinance. He
said Friday he hopes that only air alerts will occur in
the future, with air emergencies necessary in the event
of extreme pollution in the valley.

"I think people have to realize this is at an experi-
mental stage," he added.

Gilbertson also said his office now has applications
for people who own approved wood stoves. In order to
use those stoves during alerts, they must have permits

Please turn to Page 14

Lemon Creek vicinity to be monitored for wood smoke

THE JUNEAU EMPIRE

Lemon Creek residents may want to buy warm slip-
pers for next winter, as their neighborhood will proba-
bly end up being subject to its own wood stove bans.

The Lemon Creek area is one place that will feel the
impact of a comprehensive ordinance regulating wood
stove use that was approved by the Juneau City-Bor-
ough Assembly several weeks ago.

At the urging of some assembly members, municipal
staff agreed to begin monitoring the Lemon Creek area
with an eye to regulating wood stove use. This winter,
however, there isn't the necessary equipment in the
area to effectively measure wood smoke pollution.

In next year's municipal budget, staff will be seeking
\$25,000 to buy a wood smoke monitor for the area. Once
installed, the device will allow municipal officials to call
for wood smoke bans in Lemon Creek, as well as the
Mendenhall Valley.

Steve Gilbertson, lands and resources manager, said
he expects the municipality may call separate wood
smoke bans in each area, depending on weather condi-
tions. He said it is now impossible to predict how often
bans may be necessary in Lemon Creek.

"We do not have a lot of data for the area," said
Gilbertson.

He added, however, that his office has received a lot
of calls from Lemon Creek area residents who com-
plained of wood smoke pollution.

The new proposed smoke alert area in Lemon Creek
extends from the Juneau Christian School, including

Please turn to Page 14



ASSOCIATED PRESS

ion may be cut short.

launch window of only a
ments of the current mis-
bitious schedule of 15

Please turn to Page 14

.....Page 4
.....Pages 6-7
ocks.....Page 13

WEATHER

Rain showers continuing through
Tuesday, Page 14

*Juneau
Empire
1-13-86*

Woodsmoke...

Continued from Page 1
from the city. The free permits are good for two years.

Gilbertson said the approved wood stoves have two things in common — very low emission standards and certification from Oregon.

Because the municipality is basing its new ordinance on a similar law in Oregon, it is accepting that state's testing procedures for wood stoves.

Many of the approved stoves — there are now 10 on the list — have catalytic converters. Others use pellet fuel to reach the low emission standards.

Gilbertson said at least four other stoves, some of which are for sale locally, have gone through the tests, but are not yet certified. He said he expects a new list from Oregon by the end of this month.

Until then, he said he can only recommend the 10 stoves on the approved list. They are:

- Blaze King "King," a catalytic converter stove.
- Earth Stove 1000-C, a catalytic converter stove.
- Turbo 10, a catalytic converter stove.
- Fisher Tech IV, a catalytic fireplace insert.
- Timber Eze 477, a catalytic wood stove.
- Vista 640, a non-catalytic wood stove.
- Pellefier FS-1, a non-catalytic stove that burns pellet fuel.
- Whitfield, a non-catalytic stove that burns pellet fuel.
- Collins Hopper, an add-on device that burns pellet fuel.

Those wood stoves that are on this list and sell locally

cost about \$1,000, not including installation.

The assembly hopes to eventually have all stoves in the city-borough meet the emission standards. To meet this goal, the new ordinance calls for all wood stoves installed and sold in Juneau to meet the Oregon emission standards beginning Aug. 1.

Gilbertson expects the most successful enforcement of this new regulation to come from the building department, which issues permits for wood stove installations.

Steve Shows, who assigns building inspections, said a building permit is required for any new installation, including replacement of an existing stove. The permits and their accompanying inspections are free and are designed to make sure wood stoves are safely installed, he said.

"Home owners are sometimes not getting a building permit and installing a stove, sometimes properly, sometimes not," he said.

During the past year, the municipality has been aided in its inspection effort by some insurance companies who now require proof of wood stove inspections before offering insurance, said Shows.

"This is the greatest plus we have seen," he said.

Shows said that "nine times out of 10," wood stoves that are inspected were installed incorrectly.

He said that currently he is able to schedule inspections with a day's notice. Those who want inspections should call a 24-hour recording phone 586-1703, before 7:30 a.m. on the day they want an inspection.

To receive a permit, they should come into the municipal building department and fill out a form. They will also receive a brochure on proper stove installation.

Lemon Creek...

Continued from Page 1
Sunny Point, back to Lemon Creek basin and to Vanderbilt Hill.

Gilbertson also said many Juneau residents remain unclear about where the boundaries are for the Menden-

hall Valley wood smoke alert area.

They could be described as having a southern boundary of the airport area, a north boundary of the glacier recreational area, an east boundary running along the base of Thunder Mountain and a west boundary that bisects the Mendenhall Peninsula.

Not included in the ban are the Auke Lake area and Fritz Cove Road.

Shuttle...

Continued from Page 1
The flight plan today was devoted mainly to astronomy, and Steve Hawley spent the morning pointing two ultraviolet telescopes at star targets in a search for luminous clouds of ultraviolet radiation.

Mission Control awakened the astronauts today with the theme song from the movie "Animal House." The control center said several of the astronauts were fans of the movie, and commander Robert Gibson responded, "It sounds like our secret is out."

Columbia shed its postponement jinx with a spectacular predawn liftoff Sunday, and 9½ hours later the crew launched the world's most powerful commercial communications satellite, RCA's \$50 million Satcom KU-1.

"It's on its way," Mission Control radioed after a rocket engine ignited to propel the satellite toward stationary orbit 22,300 miles above the Earth.

RCA, which paid the National Aeronautics and Space Administration \$14.2 million for the delivery, said Satcom will be capable of providing video and audio communications for all of the United States except Alaska, transmitting a signal powerful enough to be received by dish antennas as small as three feet.

Nelson and Hawley will have an exclusive view of the comet as it nears the sun on its once-every-76-years swing through this part of the solar system.

"You can't observe Halley's from the ground as it makes its closest approach to the sun in January because of the sun's brightness," explained S. Alan Stern of the University of Colorado, who is principal investigator for an experiment named CHAMP or Comet Halley

Nelson, who will operate the CHAMP cameras, said in an interview before the flight, "We'll be taking some photographs and spectral measurements for the purpose of documenting the comet, and we'll be doing it from above the atmosphere where we can get a real clear look at it. We're going to use the apparatus over the course of three flights, so we should be able to get a good consistent set of data on Halley's."

Stern said the instruments "primarily will be looking at water. The comet is basically an ice ball, and when the sun melts the ice, it breaks the water down into constituents. We'll study these to learn about the comet's atmosphere."

Hawley will use two telescopes to search the universe for sources of luminous clouds of ultraviolet radiation.

"Only in the last 10 years have we begun to look at the universe in the ultraviolet wavelength," he said before the mission. "The reason for that is that the observatories on Earth being beneath the atmosphere are not able to observe these wavelengths because the atmosphere is opaque to UV radiation. So we'll be getting some very fundamental data and will be dealing with questions as to where the UV emission comes from."

He said the knowledge would help astronomers mask out the UV background and thus improve the data from the \$1.2 billion Hubble Space Telescope, which will be launched from a shuttle next October.

One of the telescopes also will be trained on the comet.

Rep. Bill Nelson, a Florida Democrat riding as a congressional observer, planned several medical experi-

NCIL

Board of trustees of Juneau Arts and Sciences Council will meet at 7:30 p.m. at Northern Light United Church. Members and interested persons to attend.

STAR

Juneau Lodge No. 147, F. and M. will meet at 7:30 tonight. All Masons are urged to attend.

Members of practically any skill level are enthusiastic about forming a new band of Alaska-Juneau pep band are interested persons to contact the UAJ office of student activities at 789-4528.

ESSURE

Stress management testing will be conducted at Mountain View Senior Center from 9:30 a.m. to 1:30 p.m. Tuesday. No appointment is necessary. Call 586-3736 for information.

S

Fire set off in the Cedar Park area. Fire set on fire.

ip

Firefighters are reminding residents every home should have at least one fire extinguisher and everyone in the household know how to use it. The Glacier Fire Department offers classes on use of fire extinguishers. For information, call 789-7554.

nice calls

Volunteer Fire Department services teams responded to a call at the weekend:

Call: At 9:49 a.m. Friday, patient, stable, transported to Memorial Hospital.

Vehicle accident: At 10:06 p.m. Saturday, patient, stable, no injuries minor, both patients transported.

Call: At 2:29 a.m. Saturday, patient, no transport; at 11:51 a.m. Saturday, patient, choking, mother dislodged, child was stable and taken home by the family; at 2:01 a.m. Sunday, patient, cuts, patient taken to the hospital.

Volunteer Fire Department services teams responded to a call at the weekend:

Call: At 9:34 a.m. Friday, patient, stable, transported to the hospital; at 11:48 a.m. Sunday, no details, patient stable, transported to the hospital; at 2:50 p.m. Sunday, patient, chest pain, stable condition, transported to the hospital.