

This slide pertains to roadbuilding and how much this would mean in savings on roadbuilding of over \$335 million if this technique could be developed.

Now, this slide illustrates what it means in the State of Alaska. If this were developed in the lower panhandle country, we would be able to capture an additional 440 million board feet annually of Alaska cut that is currently not available.

And what does it mean acreagewise to us in all of the West? This slide shows 6.5 million acres in the Douglas-fir region of Oregon and Washington, 2.6 million in Alaska, the balance of the Western United States, 17.3 million for a total of over 25 million acres that would be treated in this fashion.

This slide shows the research that needs to be done, the lift studies, the engineering design for lift equipment needed and so on. The balloon in the upper right of this slide is the one built by Goodyear and used by Bohemia Lumber Co. The rigging that you see in the lower left and the load of logs, thinning in the lower right.

This slide presents the Forest Service idea of using a flex wing so that we use a small balloon with just enough lift to carry the rigging and as the weight of the logs come on a flex wing would open, catch the air currents and the extra lift would be provided through the wind currents and the logs would come down the line.

The balloons being used are shown in this slide and the loader. Another loading of a barrage-type balloon, the type that is being used in British Columbia. And further studies needed, the effort to handle this large mature timber with difficult access. The additional design, engineering work that must be done. And here it is. Thinning. I think that is it.

Senator MORSE. Are you making progress in logging with helicopters?

Mr. GASKINS. No; I believe that there was some research but it has been shown that the costs are too high.

Now, in tabulation what are we talking about? This slide shows we are talking about over 25 million acres of land carrying major volumes of timber that would add to our Nation's woodpile, if we could include the acreage as part of the commercial forest base.

Switching to a series of slides, these are a part of the record that has been supplied in appropriations hearings over the past few years, in support of balloon logging.

Senator MORSE. Mr. Gaskins, do we have this and the other charts in any of your written material, or is this separate from your written material?

Mr. GASKINS. This is separate from the written material. However, we can reproduce them for the record if you wish.

Senator MORSE. Let the record show that the tables and whatever we can get into the transcript of other material should be prepared for inclusion in the record, to accompany your testimony.

Mr. GASKINS. Thank you, sir.

I believe that covers this particular chart, unless you have some questions.

(The table referred to follows:)