

trees measuring up to ten metres in height would remain untouched and the soil would not be damaged. When the well-known multi-operational units, such as the Bush combine, for example, are used, the various logging operations are carried out consecutively. When one working part is in operation all the others are idle. With the PSU, on the other hand, all the working parts are in operation at the same time, thus creating an operational flow. This is a new quality in multi-operational logging units. Given the fact that the PSU is a united, mechanically-connected system of machines, full automation (robotization) is a possibility for work on the main mast, where, if necessary, it would be possible to carry out delimbing work and to sort the trees according to species and dimensions. We must also bear in mind that it would be simpler and cheaper to electrify timber transport and timber felling operations based on this type of system.

The creation of this type of unit would make it possible to raise working and production conditions to a new level in felling operations and to help preserve the forest environment.

This solution can be termed the "above-ground" approach but there is yet another variation-"airborne", involving aviation. The first variation was investigated bit by bit by amateur enthusiasts but the second has been systematically tested by experts from the Caucasian branch of the All-Union Scientific Research Institute for Forestry and Forestry Mechanization (VNIILM) since 1979.

I have been acting Chief of the Helicopter Timber Transport Laboratory of this Institute since July of 1979. The laboratory, which had a staff of six young experts, began to develop two different