

TRANSPORT OPTIONS IN LIMITED SCALE LOGGING OPERATIONS

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Due to many factors present in small scale logging which do not exist in higher production operations, transport "options" can easily become "restrictions" if the correct approach is not taken. A systems approach taken when planning the operation to be undertaken can ensure that the logs are moved at the lowest possible cost in the end. A seemingly simple factor such as log length can severely restrict the transport options open to you. Factors to be considered in a systems approach will include :

- loading and unloading equipment and methods;
- overall transport requirements (number of loads/day or week);
- timing of operation (summer, winter);
- allowable expenditure for roading improvements;
- roads used outside of logging area;
- local availability of log trucks and trailers.

LOADING/UNLOADING

In a small scale operation the method of loading will have a big influence on not only the transport options but the cost of building and maintaining a landing. If small knuckleboom-type machines are to be used will they be able to lift piggybacked 2- or 3-axle trailers off an empty truck? Will the landing be large enough to turn an empty semi-trailer (bailey bridge type) unit around on? Will a truck mounted crane suffice? Once again, with respect to unusual loading options, they may not be locally available.

OVERALL TRANSPORT REQUIREMENTS

If the scale of logging operations is severely limited the transport requirement may be such that forwarders, rather than road going trucks and trailers, may easily satisfy initial volumes. Forwarders may also move the required volumes without having to upgrade logging trails or roads much above their present condition. More considerations necessary for forwarders are discussed elsewhere in this seminar.

OPERATION TIMING

While log trucks and gang trucks may easily traverse certain forest roads during summer the situation can be vastly different in other seasons. If seasonal operation can save roading costs or permit use of a payload efficient unit or higher average speeds then it is certainly worth considering.

ROADING IMPROVEMENTS

This subject, when considered with transport options can be a quick way of running into the red if caution is not exercised. While the operating costs of various transport units vary it is worthwhile to check whether the savings generated using one particular unit can possibly justify roading expenditure.

PUBLIC ROADS USED

In many cases the access to small atypical logging areas will involve the use of county roads which may also limit transport capacity.

Since the questions generated in considering all possible options with respect to transport may well exceed the answers available, it will often pay to obtain specialist knowledge on the subject be it from a forestry consultant, local logging or transport contractor, or advisory agency such as LIRA.

In the interest of bringing you up to date with log transport trends in general, the rest of this paper will be devoted to some of the latest options available in transport of logs by truck.

In particular, the one rule which does not apply in transport as it may in small scale logging is do-it-yourself. As you are likely to require maximum performance from the transport system chosen, it cannot be a homemade or modified unit. While the safety of bush workers is maintained through the Department of Labour Bush Code, the safety of the general travelling public is checked by the Ministry of Transport. Both enforcement agencies are now demanding rigs to be built to certain standards by reliable and readily identifiable manufacturers. This means properly designed and welded equipment built to carry the load.

There is, however, much good news to report on options available for log cartage. Some of the good news is found below. (The date used for comparison is 1979 - 6 years ago - the last LIRA seminar held dealing directly with log transport.)

- 3 axle trailers which were not common in '79 are now not only becoming more common, but are easily piggybacked now also.
- Adding a 4th axle to conventional (bonneted) trucks can now be achieved using an air suspended axle to reduce road user charges and allow an empty rig to negotiate rough forest roads with good traction capabilities.
- Self unloading/piggybacking trailers are becoming popular on long log units.
- Bailey bridge type semi-trailer units are finding their place in log transport successfully carting various log lengths.



"....3 axle trailers are ...easily piggybacked now also"

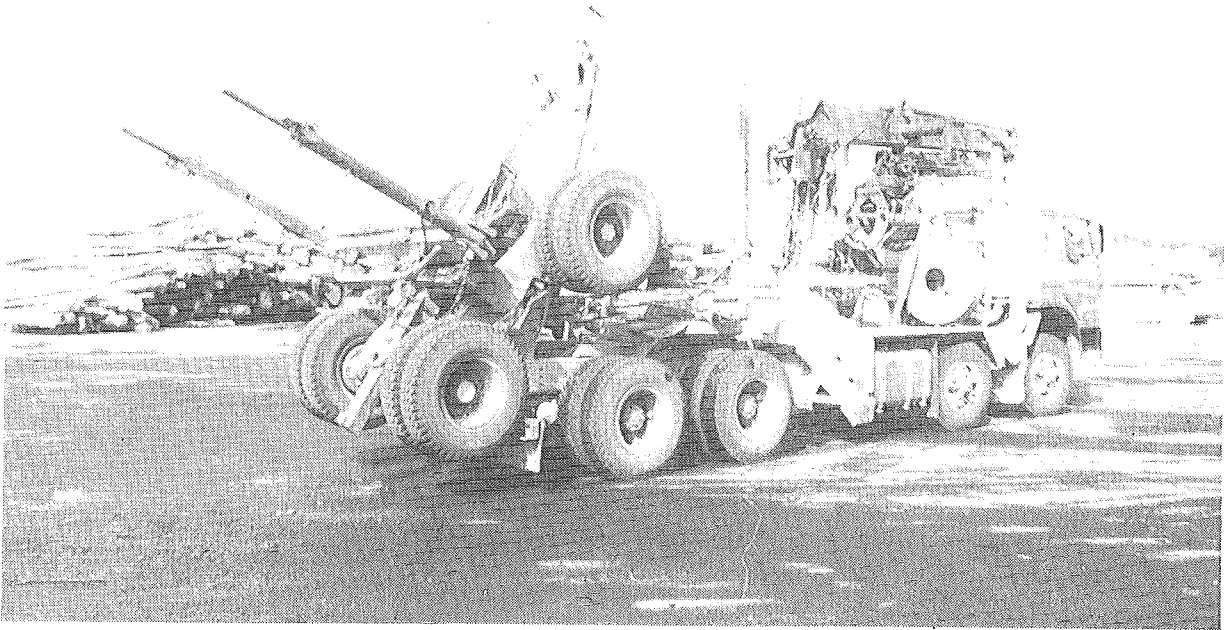
LIRA Photo L180/32)



Adding a fourth air suspended axle to a conventional truck
(LIRA Photo L345/18)



Bailey Bridge type semitrailer units can cart various log lengths
(LIRA Photo L325/4)



Self unloading/piggybacking trailers

(LIRA Photo L276/6)



Not a common sight - a mixed load of logs and livestock arriving in town

(LIRA Photo CN194/3)

