Great efforts have been made to advance the lifting capacity of the helicopter, but as helicopter capacity was successfully increased the next growth became even more difficult. Since the '50's, the U.S. Army has aimed at lifting its main battle tank (now over 62 tons) by helicopter. We are presently far from this target even in new designs that are under construction.

In the West, the maximum vertical lift is 14 tons (tandem rotor "Chinook") and 16 tons (military) (triple turbine single rotor CH-53E). Quantum jumps in helicopter lift necessitate the design, construction and testing of new rotor, transmission, and airframe systems. Thus, a new helicopter for heavier lift has become increasingly costly and will require a high military priority to reach the 60 ton class.

In addition to the many military requirements for a greater lift there are numerous commercial opportunities. Vertical airlift can provide significant economic leverage in the construction of large facilities in a shorter time, benefiting our economy.

The concept of utilizing multiple helicopters joined together to lift a common payload was born to meet this need. The multi helicopter heavy lift system with its rigid interconnections has been designed into a series of configurations utilizing modified existing large helicopters. The helicopter modifications can be designed so as to allow the use of the helicopters in their original roles when the heavy lift is not required.

The MHHLS (Multiple Helicopter Heavy Lift System) represents a large economic saving over a new heavy lift helicopter. All MHHLS configurations modify the controls to have one pilot operation. In some designs, the drive system is interconnected to allow power transfer from one helicopter to another, in the case of an engine stoppage.