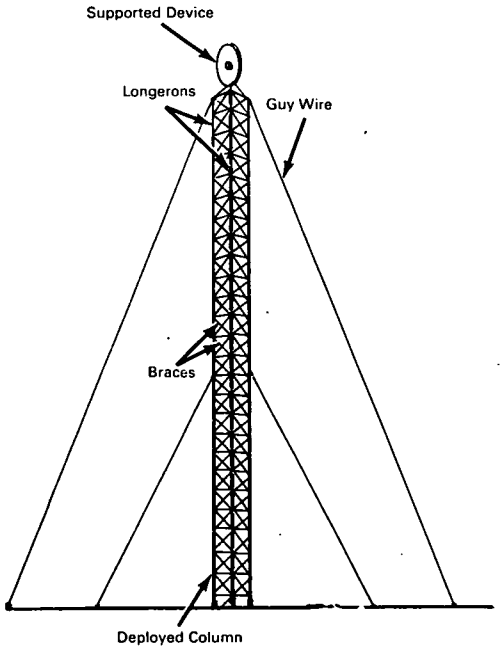
NASA TECH BRIEF

Deployable Lattice Column



In many situations, it is required that certain equipment, such as instruments for measuring pressure, temperature, humidity, and the like, be raised to a level appreciably above that where data is to be recorded and evaluated. In cases of certain military applications or those requiring that short, discrete time increments be taken advantage of, a quick and dependable means of raising such instrumentation is needed.

A mechanical column has been designed that can be rapidly deployed from a relatively small collapsed mass to an appreciable height. This column is made up of many individually collapsible sections connected in tandem, each section having a triangular cross section. Each column section has three face structures, or subsections, and each face structure has a rectangular shape of appreciable height when deployed, and minimal height when collapsed. The face structures or subsections are maintained in a rectangular shape by two diagonal wires, each tied to opposite corners of the rectangle to prevent collapse. One of these diagonal wires incorporates a spring that permits its extension and consequent collapse of the rectangular face structure.

The column may be collapsed by collapsing each section in sequence and is deployed by extending each section in sequence.

(continued overleaf)

Note:

Inquiries concerning this invention may be directed to:

Technology Utilization Officer
NASA Pasadena Office
4800 Oak Grove Drive
Pasadena, California 91103
Reference: B68-10082

Patent status:

This invention is owned by NASA, and a patent application has been filed. Royalty-free, nonexclusive licenses for its commercial use will be granted by NASA. Inquiries concerning license rights should be made to NASA, Code GP, Washington, D.C. 20546.

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