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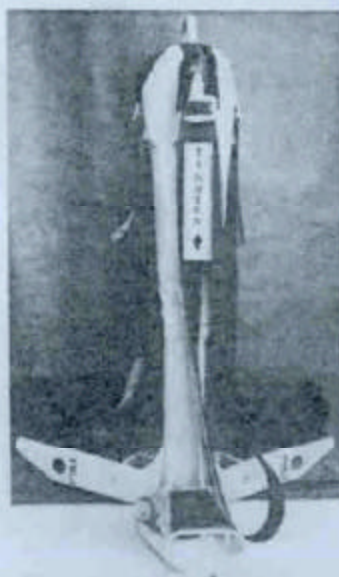
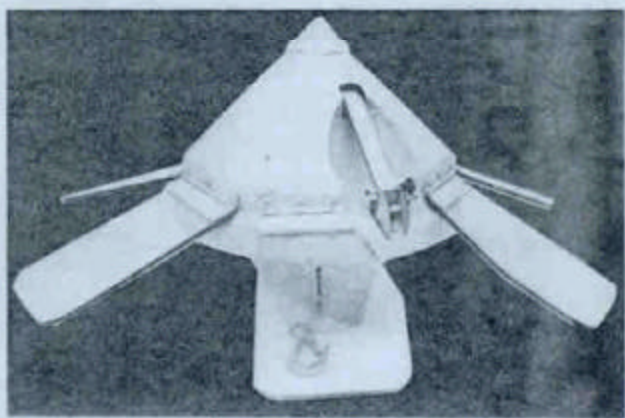
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ARTby John P. Serjano,
KRT Featured Writer**The Kaman Forest Penetrator Seat—****Backbone for 'Universal Rescue System'**

Because of its proven success in Southeast Asia, helicopter crews have come to regard the Kaman Forest Penetrator Seat as a VIP of their rescue equipment. First introduced by the U. S. Air Force almost four years ago and immediately put to use in Vietnam by ARRS crews flying in the HH-43 HUSKIE, the forest penetrator is now widely utilized by other Services as well. Because of its comparatively small size, and universal adaptability, the penetrator is used in several different types of helicopters operating in that war-torn land. As a result, hundreds of downed airmen or wounded ground troops have been rescued or evacuated from jungle areas. Earlier, before the device came into use, helicopter crews sometimes found it extremely difficult, or even impossible, to lower a sling to a man on the ground. Quite often the sling would catch on the trees—some 200 feet high—which formed the jungle canopy. The penetrator, however, is designed to "thread" its way through the entwining branches to the ground.

Now, continuing its "Design For Rescue Program," Kaman has used an improved forest penetrator as the backbone for a universal rescue system which will give helicopter crewmen even greater latitude in selecting a rescue device to fit a particular topographical situation. For land relatively free of trees or treed areas which would not offer great resistance to a hoisted rescue, the

crewman can use the forest penetrator alone; for water rescue, he can use the penetrator with its easily-installed flotation collar; for heavily-forested areas, where limbs, branches or vines might cause injury to the person being hoisted, a crewman may use the penetrator with a Personnel Shield recently developed by Kaman.

The lightweight personnel shield is unique because it can be lowered or raised through thick jungle foliage without assistance from personnel mounted on the penetrator. When removed from its stowed position and held by the locking handle, the shield is ready for installation. It may be attached to the hoist cable, either inside the cabin or while the penetrator and cable are outside the cabin doorway. As can be seen by the photo, the shield comprises a cone-shaped cap, a somewhat similarly shaped base and six transparent petals. The petals are hinged to the shield in such a manner that they protrude in a protective position. In use, the per-



IMPROVED FOREST PENETRATOR--First photo, with new-type seats folded, safety straps enclosed within the protective cover and Velcro secured tabs exposed. It is lowered to the ground in this configuration. Second photo, safety straps are exposed and seats extended. Third photo, penetrator is in stowed position with flotation collar installed. Fourth photo, rigged for rescue with straps exposed and seats extended. It is lowered to the water in this configuration.