This ATM discusses an alternate stowage design for the mortar box antenna cable. (Answer to ALSEP R.F.C. 07A-04)

During the ASE CDR of the mortar box an RFC was submitted recommending a redesign of the antenna cable stowage so that the cable would deploy automatically when the mortar package assembly is removed from its stowed position on the sunshield. The present design requires the astronaut, after the mortar package assembly is removed, to unlatch a spring loaded cover to permit the antenna cable to deploy. Automatic cable deployment would, therefore, simplify the astronaut's task of deploying the ASE. The following page describes an alternate design which will allow the desired automatic cable deployment. The design consists of replacing the presently designed cable stowage hardware and spring loaded cover with a new cable stowage compartment mounted to the under side (in the stowed position) of the mortar package assembly.

Prepared by:
P. Krause

Approved by:
N. R. McDowell
The antenna cable stowage compartment is attached to the side of the mortar box in place of existing cable stowage hardware.

The stowage compartment has no cover and the cable is kept in by the foam pad on the sunshield. When the mortar box is deployed the cable is free to uncoil.

Below is a sketch of the compartment which is made from mag. alloy.

The weight of the compartment is calculated as follows:

\[
\text{Wt. of Compartment} = (3.14)(3.57)(.76)(.025)(.067) + \left[ (3.14)(3.57) + 7.00 \right] (0.03)(0.44)(0.046) = 0.0231\# = 0.37\ oz.
\]

Weight of present cable enclosure = 0.044\# = 0.70 oz.

Therefore this is a weight reduction of 0.33 oz. with the redesigned cable compartment.