FEMA National US&R Response System / U.S. Army Corps of Engineers FEMA Structures Sub-group March08

,RECOMMENDATIONS for SHIPPING SURVEYING EQUIPMENT

General guidance from Trimble Navigation, Ltd., supplier of Nikon surveying equipment, recommends the following to ensure that the instrument calibration remains intact through the shipping and handling process.

It is also recommended that the instrument hard case, and any shipping container or box, be marked with highly visible stickers stating "FRAGILE - PRECISION INSTRUMENT".

Recommended Shipping and Handling Guidance - Nikon NPL-352 Total Station

- 1. For shipping by express mail or general mail service, or by courier service:
 - All items must be properly placed within the original Nikon orange plastic hard case
 - Instrument tangent, locking thumb screws should be "loose"
 - Latched Nikon case must be packed securely in a double-corrugated cardboard box of sufficient size to allow for adequate packing around the Nikon case (Trimble recommends retaining original Nikon Cardboard box with all interior spacer pieces for courier or mail shipping)
 - Optionally, the Nikon case can be placed inside a foam-lined durable plastic or metal hard case for shipping, and should be secured against within that case
- 2. For transporting when traveling by air (non-Task Force deployment):
 - Instrument in Nikon case should be carried on plane and <u>not</u> transported as checked baggage
- 3. For transporting by air or over the road during a Task Force deployment:
 - Typically during a deployment the Nikon instruments are palletized and secured.
 The Nikon in its original orange hard case should be secure (not subject to
 movement) inside the pallet container and be arranged so that it is one of the first
 pieces of equipment out of the pallet for immediate use at the deployment. (Notethe Nikon Total Station should be palletized, together, with its tripod)

Recommended Shipping and Handling Guidance for Standard Tripods

- 1. For shipping by express mail or general mail service, or by courier service:
 - Remove tripod leg points or tips, to prevent them from puncturing the package
 - Package tripod in cardboard box with suitable packing material
 - Alternatively, package tripod in FEMA US&R "PVC Tripod Case", as designed by the SSG (Structures Sub-Group). See www.disasterengineer.org for PVC Tripod Case materials list and assembly instructions.