



**US Army Corps
of Engineers®**
Engineering and Support Center,
Huntsville

Safety Office

Mishap Lessons Learned



Subject: Counterbalance Mounting Plate Weld Failure

Event: On-site technician was raising the camera pole using the approved counterweight assembly attached to the matching bracket welded to the pole. This is a correct and tested procedure. During the raising process, the welds holding the pole-mounted plate broke free causing the pole to drop a distance of 6 feet to the road surface. The technician was able to avoid the falling pole, but damage resulted to at least one of the two cameras mounted on the camera pole. An on-site engineer examined the weld on the plate and determined the weld itself to be defective with no traces of corrosion or other damage.



Root Cause(s):

- **Improper welding technique** - Welds for the plate were “button type” tack welds that cannot physically stand up to repetitive lifting and lowering stresses.
- **Corrosive (salt air) environment** - Tack welds allow the corrosive air to impact all exposed metal surfaces and gradually atrophies and weakens the plate-to-pole bond.

Recommendations:

- Inspect critical connections and surfaces
- Maintain a safety zone during lifting/lowering ops
- Affix a safety cable to prevent/mitigate drops
- Always have and wear appropriate PPE06
- Broadcast incident details to all sites
- Suspend all raising/lowering of poles & conduct pole plate checks
- Contact manufacturer for repair actions