

Naval Gunnery Target Balloon Information and Instructions



Target X-Ray™ NavTGT

Target X-Ray™ is a new very light weight adrift target designed to maximize RADAR reflectance in a stable, easily inflated low air volume NavTGT balloon; for use primarily for RADAR acquisition gunnery target practice or air-to-surface gunnery practice.

It is air inflated, bright **YELLOW**, 2.4 x 3.1² meter (8ft high, 10x10ft diagonal) in size. Target stands with a submerged base about a foot below the surface, firmly anchoring the inflated target upright to the surface. Made with 12 mil PVC fabric, with a 50-ft floating polypropylene handling line, fastened via a spring gate carabiner for launch & recovery purposes.



Figure 1

This target is designed for Radar reflectance emulating a rigid “corner-reflector” mounted at the top of the vertical pillar for maximum signal return.



Figure 2

Target balloons individually packaged in a 13-inch diameter cardboard shipping tube.

Target X-Ray™ is inflated via a 2-inch twist lock nozzle with cap, using any available air source such as a pressure hose, blower, ducted air vent or machine exhaust of some sort. Each target inflates with only 10cu.ft. of air at 25 to 30 PSI pressure. A flap valve is mounted inside the nozzle to restrict back flow during inflation.

[NOTE: a version of this target is being designed for water surface auto-inflation for launch from ships or aircraft. Contact us for further information and availability.]

General Instructions:

1. Select deck with an area of at least 15 foot square where there are no sharp objects and where the target can be tied down during inflation.
2. Remove the target from its shipping tube. Fasten handling line on base to something secure on the deck. Unroll to flat. Spread legs out at 90°. Locate inflation nozzle at end of each leg.
3. Twist open inflation nozzle cap, do not lose cap. Attach, or hold against open nozzle, the blower, exhaust hose or whatever air source is to be used for inflation. Do not hold blower tight against nozzle, let excess air bleed away. Begin inflation.
4. As each quarter inflates, have additional personnel hold it against blowing away and to straighten legs and vertical pillar. Inflate to 25-30 PSI, do not over inflate. Legs and Pillar should be full and tight. Flap valve inside nozzles will restrict back flow.
5. Remove inflation blower source. Cap inflation nozzle.
6. Assemble RADAR corner reflector. Mount a top vertical pillar, nested in slot between split pillar top.
7. Untie handling line from deck. Have personnel pick up target to lower on handling line over the side. Target should stand upright on the surface. Release handling line.

Warning: Over inflation will damage the target balloon.

Additional instructions

To launch a group, bunch, gang, flock or “gaggle” of *Target X-Ray™* balloons simultaneously, inflate and launch each target individually over the side, but with an additional separate line looped through carabiners. String this line through each additional target’s carabiner until all targets are together in the water, all on this single looped line. When ready to turn them all loose, just let go one end of the looped line and pull in the other end.

Target X-Ray™ is not designed to be towed or moved in water after launch.

Target X-Ray™ is a single use NavTGT only. It is not intended to be recovered.

However, to recover an inflated target balloon, slowly pull the line attached to the carabiner until you tip over the target to dump out all water ballast in the base.

Do not attempt to lift the target out of the water in the upright position, the weight of water ballast will damage the target balloon.

Deflate target by inserting a finger or stick into the open nozzle to deflect open the back flow flap valve.



Figure 3

50-foot Handling Line w
Float



Figure 4

Inflation Nozzle opposite
line, twist open. Do not
lose Cap.



Figure 5

Hold open Nozzle in
front of blower. Cap
when inflated.



Figure 6

Assemble RADAR
Corner Reflector, fasten
to carabiner top of pillar.
Nest opposite sides of
bottom in split slot.

To DEFLATE,
use finger or stick to
open back flow
flap valve.



Figure 7