# THRUST FORCE \& SURFACE AREA <br> VS <br> MOUNTING DISTANCE FROM COLLAR 



## Example using the chart:

-If the wind area of your device is $2 \mathrm{ft}^{2}$ and the wind survival expectation of your system is 100 MPH , follow the chart from the right at $2 \mathrm{ft}^{2}$ to its intersection with the line representing the mast gauge that you are using. At $2 \mathrm{ft}^{2}$ using $16-$ gauge, mount your device no higher than 4.8 ft from the tripod collar. For 18-gauge, mount your device no higher than 3 ft from the tripod collar.
-Shaded areas describe counter load at the base of the NPRM-3; it is possible to use less counter weight at the base of the NPRM-3 at the expense of mounting height for your device.
For example; if the wind area of your device is $2 \mathrm{ft}^{2}$ and the wind survival expectation of your system is 100
MPH, follow the chart from the right at $2 \mathrm{ft}^{2}$ to its intersection with the line representing the mast gauge that you are using. The intersection of $2 \mathrm{ft}^{2}$ and 14 -gauge mast happens to be in the darkest shaded area on the chart. This indicates a minimum requirement of 640lbs applied to the base of the NPRM-3. From the graph above we see that a device at $2 \mathrm{ft}^{2}$ on a 14 -gauge mast should not be mounted higher than 5 ft from the tripod collar. If the same device is mounted 3.5 ft from the tripod collar, the intersection point is now in a shaded area representing a minimum counter weight requirement of 4801 b .
-If the wind survival expectations of your system are different than 100 MPH , it is possible to calculate thrust force based on wind area, air density, and wind velocity. Knowing the thrust force, follow the chart from the left to the appropriate mast size as described above to ascertain the maximum mounting distance allowable from the tripod collar.

## WARNING!

CONSULT A QUALIFIED ENGINEER REGARDING ROOF LOAD CAPACITIES PRIOR TO INSTALATION OF THIS MOUNT

FAILURE TO ASSESS THIS HAZARD MAY RESULT IN SERIOUS INJURY OR DEATH

COLLAR

