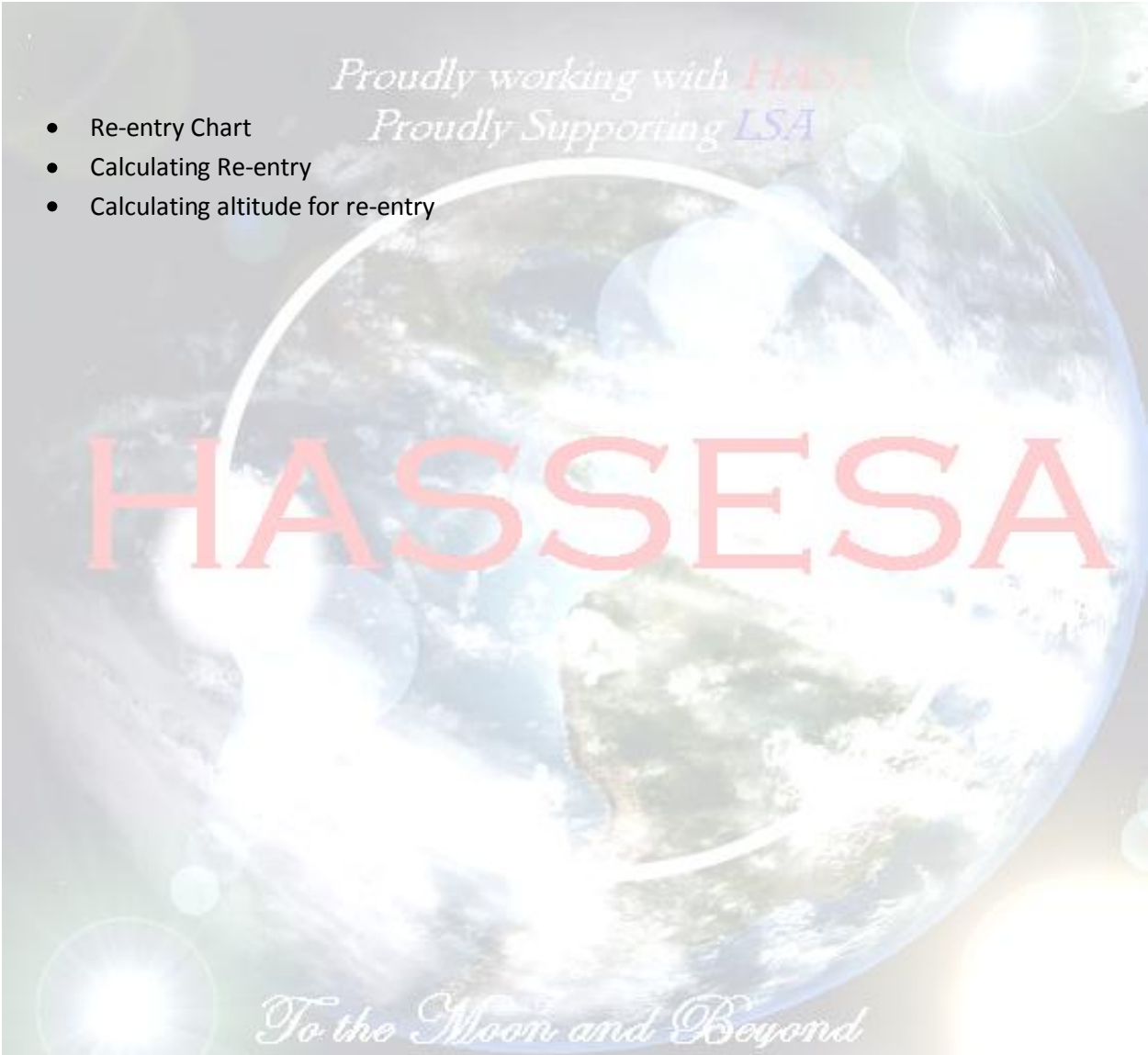




- 
- Re-entry Chart
  - Calculating Re-entry
  - Calculating altitude for re-entry

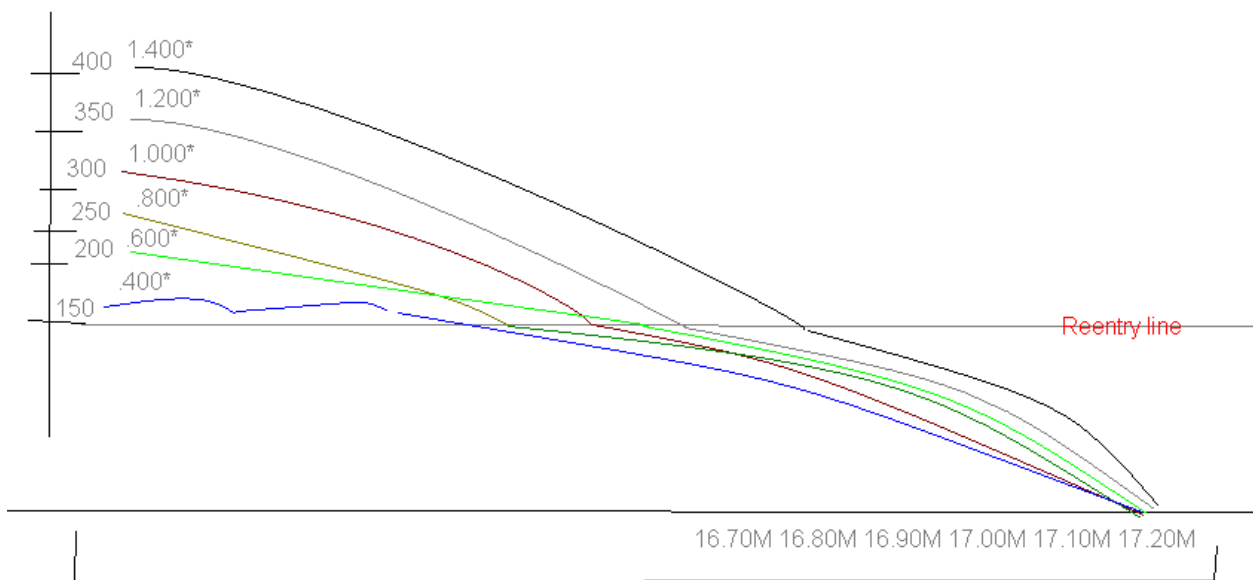
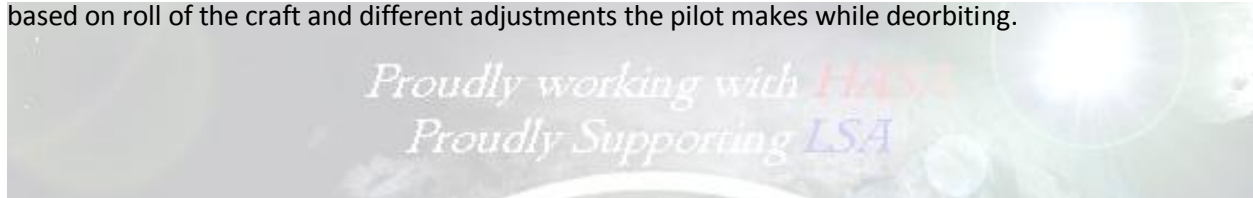
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# HASSESA

*To the Moon and Beyond*

The following is a chart devised by RocketWorks for the aid of the DGIV pilot. The chart shows possible altitudes and distances from a target that the pilot needs to deorbit to (e.g. base, ship, etc.)

Please note that these outcomes of deorbit are theoretical, and are just guides to follow. Results vary based on roll of the craft and different adjustments the pilot makes while deorbiting.



The line on the right represents the altitude in Kilometers and the bottom line indicates the distance from the target. The numbers over each line represent the Re-entry angle. Of course, these calculations are generic and assume that you are heading to a target that is approximately 17.20M from you.

It is recommended that when you are deorbiting, your altitude is either 350Km or 300Km as these are the safest altitudes to re-enter from. Be sure that your altitude is *exact*.

### How To Calculate Your Re-entry Angle If the Target is **NOT** 17.20M from You.

I have come up with a *fairly* accurate way to calculate your re-entry angle when you accidentally miss the 17.20M mark on the map.

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For every .10M you miss, you must increase your Re-entry angle by 50\*-- so if you are at an altitude of 350Km and your distance is 17.10M (instead of 17.20M) you will need to increase your Re-entry angle from 1.200\* to 1.250\* which will keep you on target. Than follow standard re-entry procedures **NOTE: Sometimes you might come out of reentry a little farther west of the target.**

Also Note that if your target is farther away (e.g. 17.30M) simply decrease your re-entry angle by 50\* and continue on with the burn.

### What If My Altitude is higher than on the Chart?

I have created a simple way to help with this issue as-well. Based on this chart you must deorbit in an altitude that is in increments of 50Km. So if you are at 450Km you just need to add .200\* degrees to your Re-entry angle (e.g. re-entry angle is 1.400\* add .200 to make 1.600\*) that should fix the problem.

*To the Moon and Beyond*