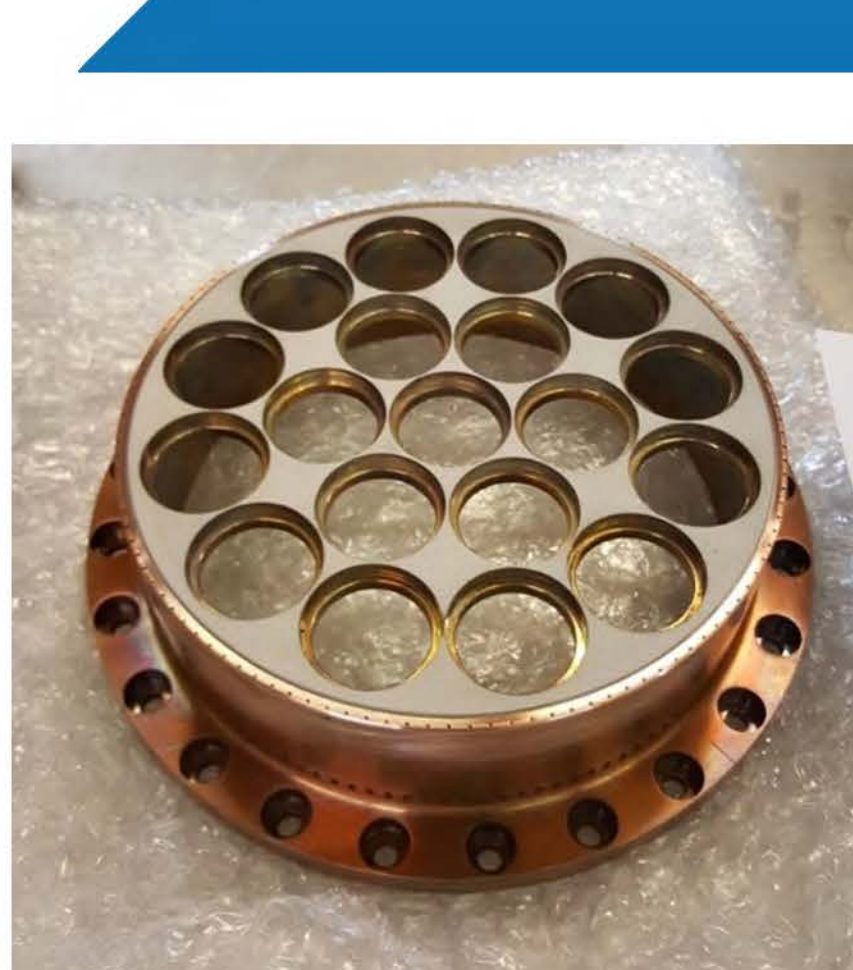
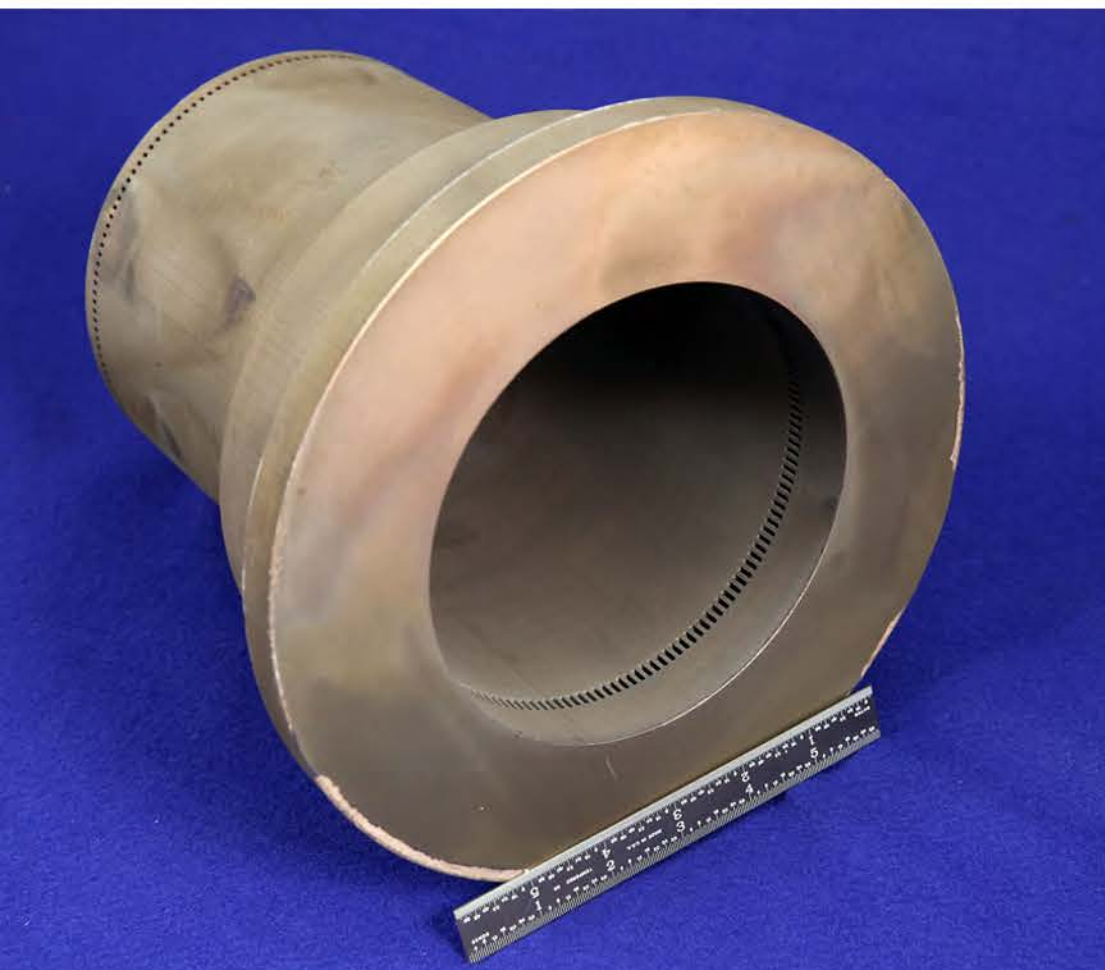


# NASA Advances Technologies for Additive Manufacturing of GRCop-84 Copper Alloy

The Low Cost Upper Stage Propulsion project has successfully developed and matured Selective Laser Melting (SLM) Fabrication of the NASA developed GRCop-84 copper alloy.

## Hardware

Several parts have been printed in house and at a commercial vendor, and these parts have been successfully machined and have undergone further fabrication steps to allow hot-fire testing.



## Testing

Hot-fire testing has demonstrated parts manufactured with this technique can survive and perform well in the relevant environments for liquid rocket propulsion systems.

