

Initially drafted diagram of DAST engine.



Preliminary test assessing the effects of airflow on weakly-oxidized combustion.



Orthographic diagram of Prototype 1, as it was tested. (Not used in construction)



Prototype 1 engine casing with bracket bolted into place.



Pouring melted fuel into engine casing during the process of casting the fuel grain.



Solidified fuel grain with paper mold removed.



Turboshaft assembly before insertion into the engine.



Engine casing and turboshaft assembly viewed together before permanent mounting.



Workplace where the majority of engine assembly was executed.



Rear left view of completed Prototype 1 mounted on testing base.



Rear internal view of Prototype 1 mounted on testing base



Front left view of Prototype 1 (and reflector disk) mounted on testing base.



Still shot of Prototype 1 during testing.



Experimental setup of equipment following the test of Prototype 1.



Collected and graphed data of turboshaft angular velocity over time.



Rear view of Prototype 1 and damaged internal components following testing.



Front right view of Prototype 1 following testing.



Dismantled Prototype 1 and internal components laid out for post-experiment analysis.



Assembly diagram of revised DAST engine design derived from collected data.