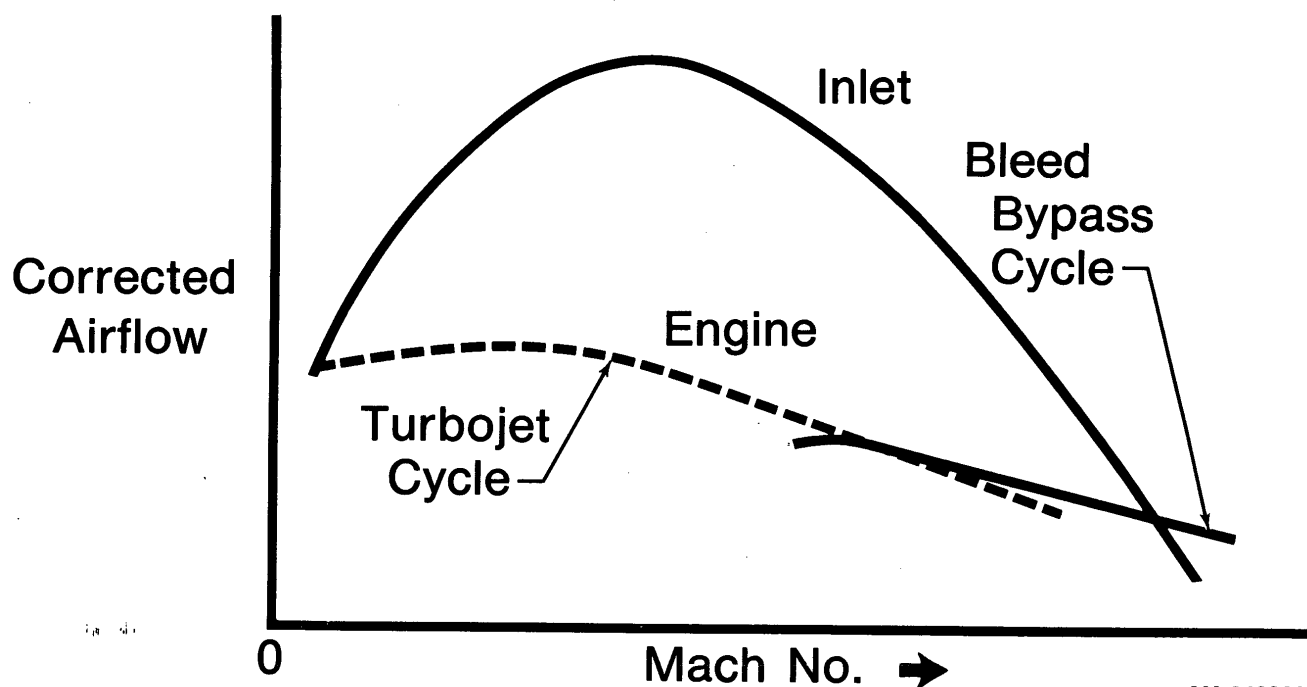


## COMPARISON OF J58 DEVELOPMENT OBJECTIVES WITH CURRENT PRODUCTION-TYPE ENGINES

	<u>J57 and J75</u>	<u>JT11D-20</u>
Mach Number	2.0 for 15 min (J75 Only)	3.2 (Continuous)
Altitude	55,000 ft	100,000 ft
Compressor Inlet Temperature	250°F (J75 Only)	800°F
Turbine Inlet Temperature	1750°F (Takeoff) 1550°F (Cruise)	2000°F
Maximum Fuel Inlet Temperature	110-130°F	300°F
Maximum Oil Inlet Temperature	250°F	550°F
Thrust/Weight Ratio	4.0	5.2
Military Operation	30-min Time Limit	Continuous
Afterburner Operation	Intermittent	Continuous

AV 213217  
812503  
gen-917

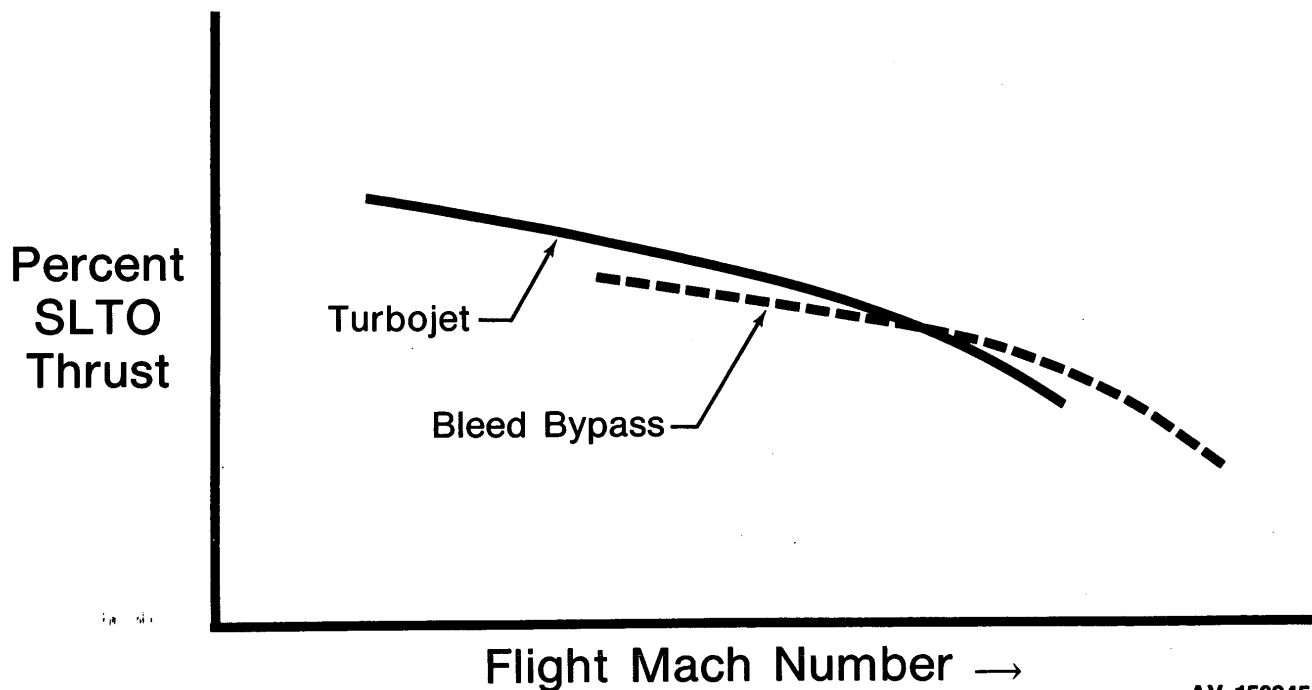
# INLET AND ENGINE AIRFLOW MATCH



AV 216388  
812004  
bet 178

# NET THRUST COMPARISON

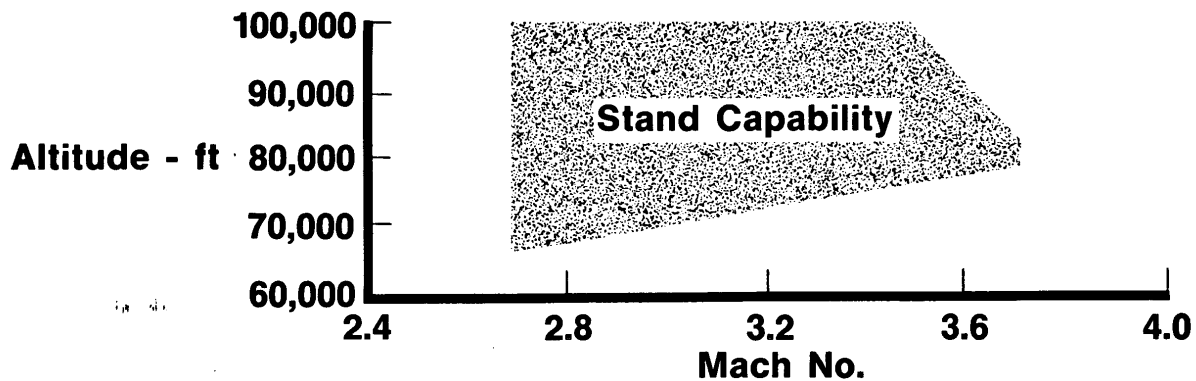
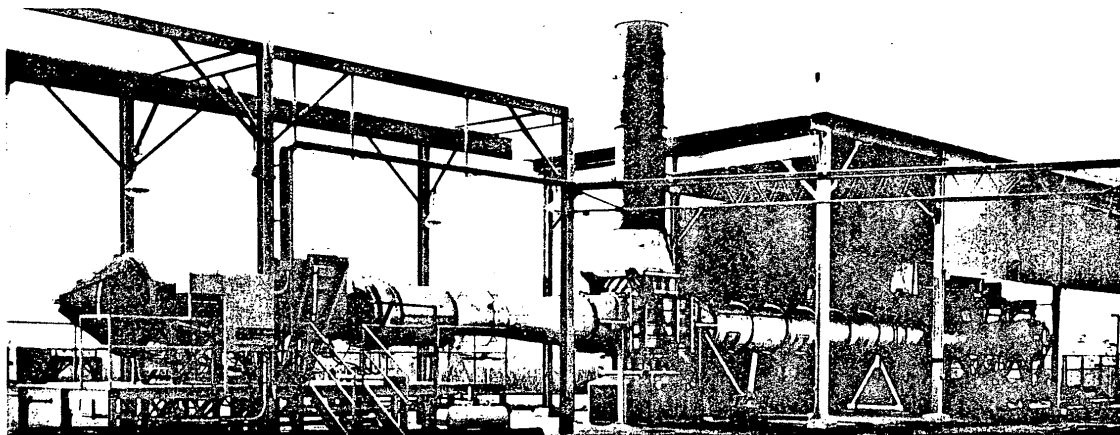
## *Bleed Bypass Cycle vs Turbojet Cycle*



AV 158945  
812503  
gen-911

E

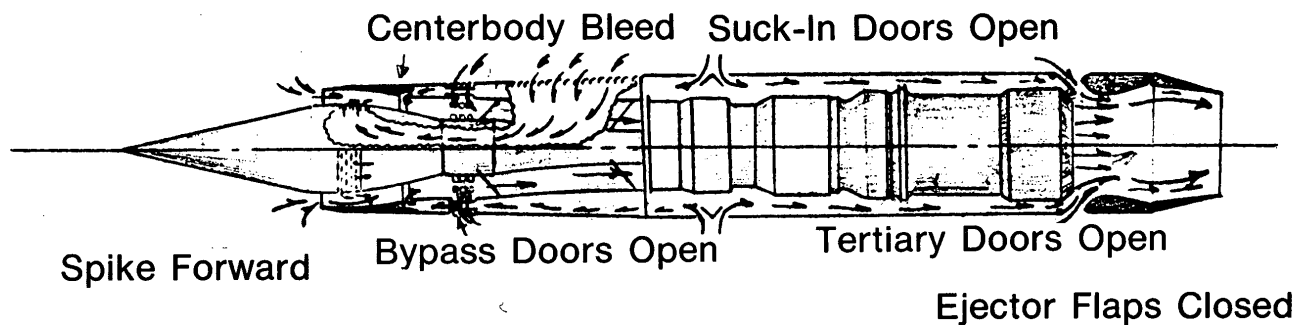
# HEATED ENVIRONMENT TEST STAND



AV 218314  
810604  
gn1-449

# AIR FLOW PATTERNS

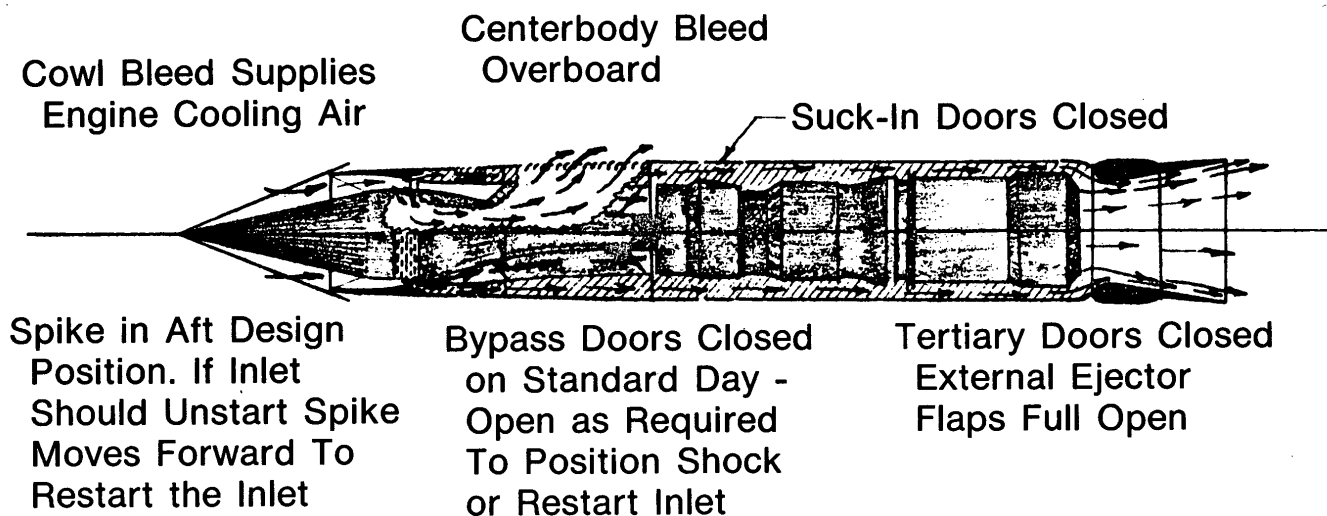
## *Static Aircraft*



AV 219006  
812503  
gen-914

# AIR FLOW PATTERNS

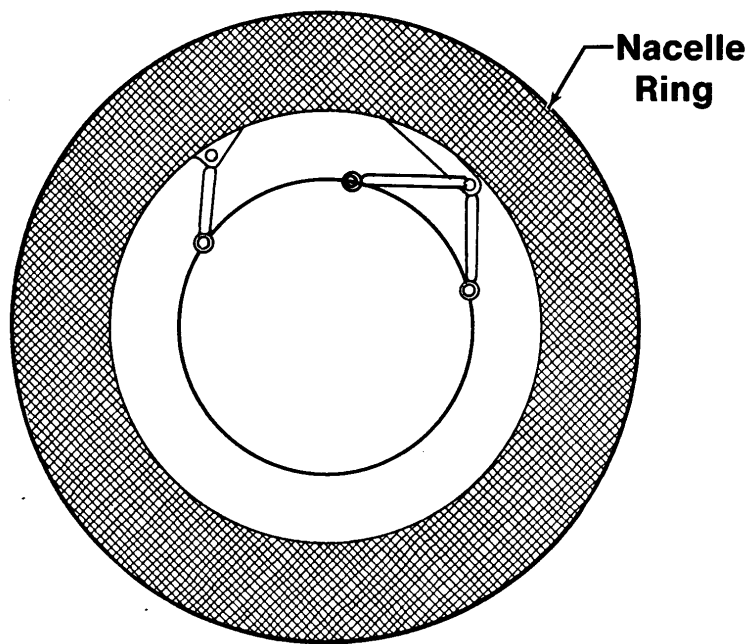
## *High Speed*



AV 219007  
812503  
gen-915

G-2

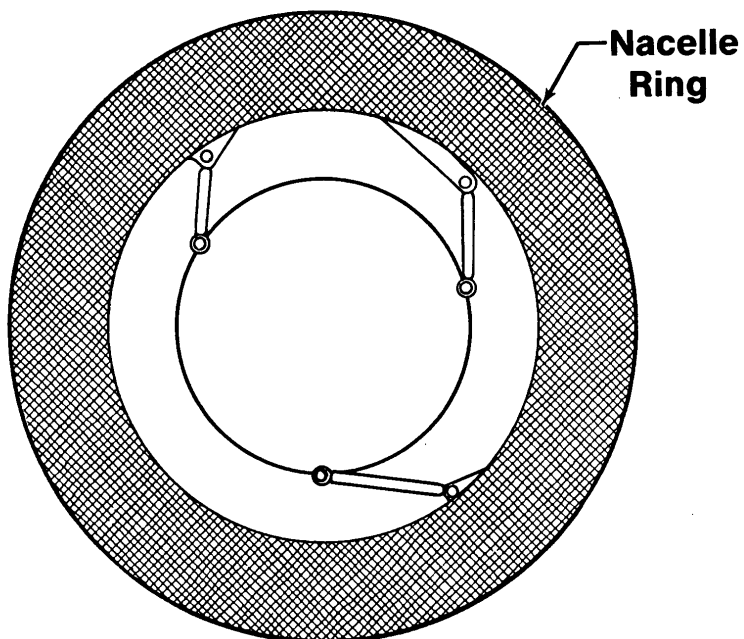
# ENGINE MOUNT



**Before**

AV 218313  
810604  
gn1-447

# ENGINE MOUNT

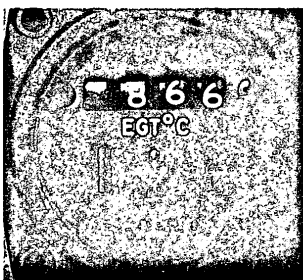


After

AV 218313A  
810604  
gn1-447



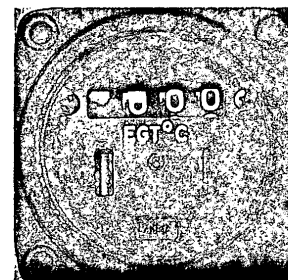
# EGT VERNIER CONTROL SYSTEM EGT ERROR GAGE OPERATING MODES



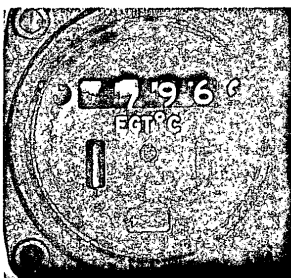
Derichment Energized



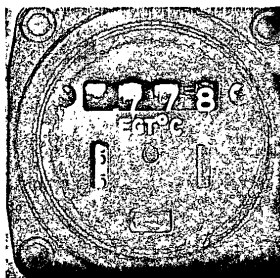
EGT Over Limit



400 Hz Power Off



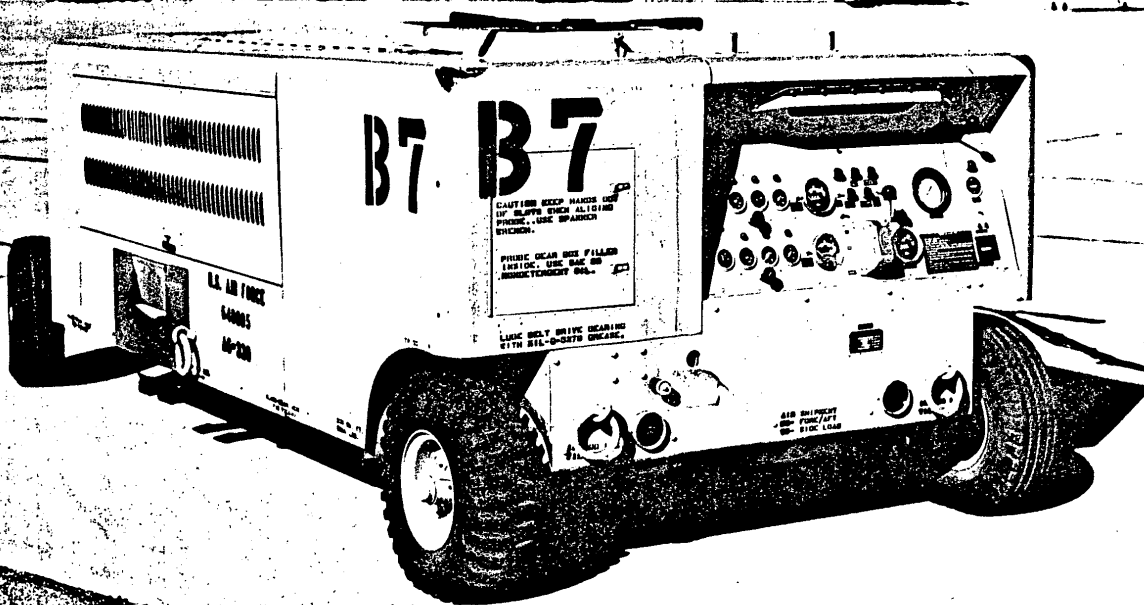
Operation Normal



EGT Under Limit

AV 218261  
811004  
b13-966

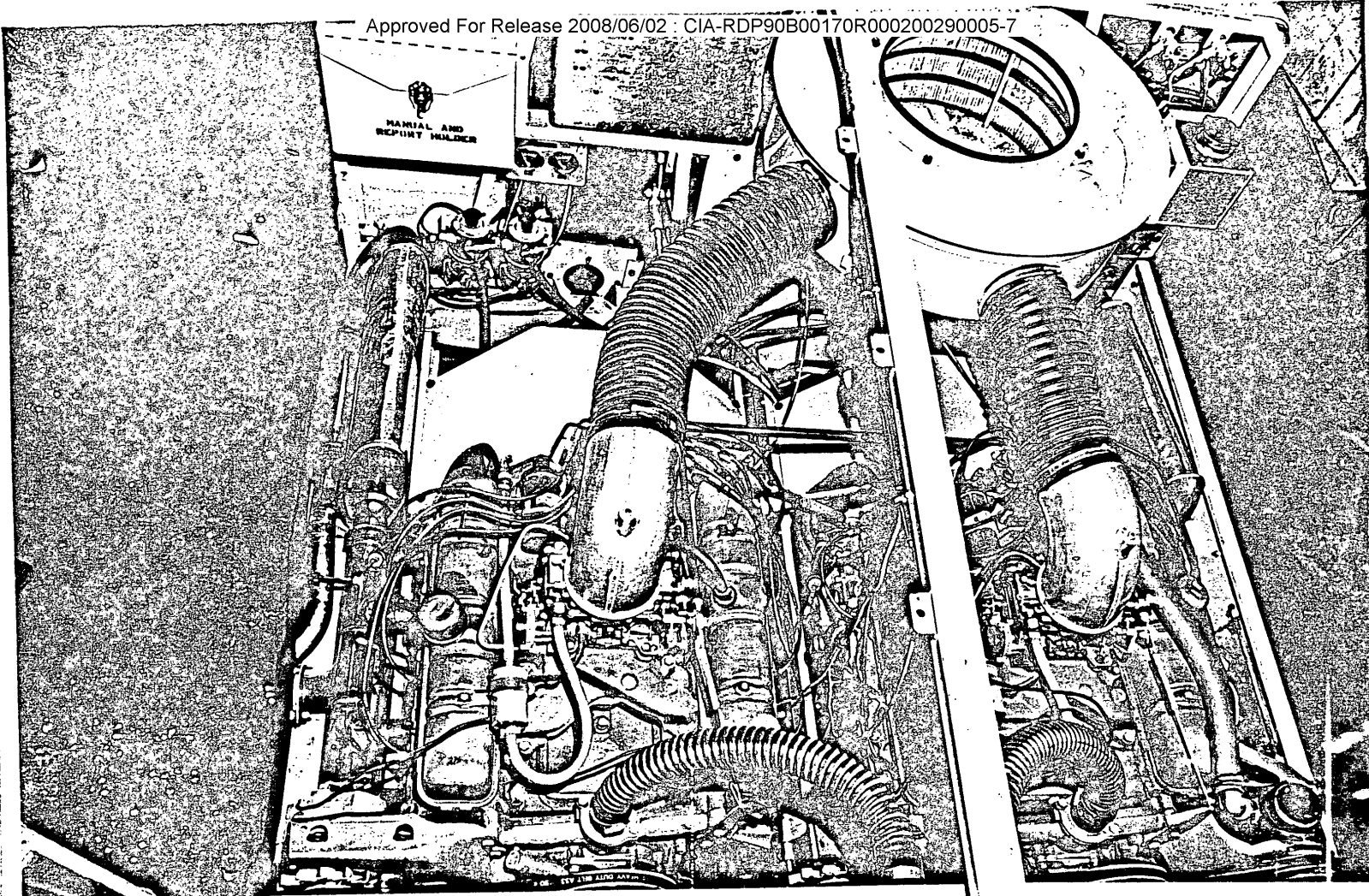
Approved For Release 2008/06/02 : CIA-RDP90B00170R000200290005-7



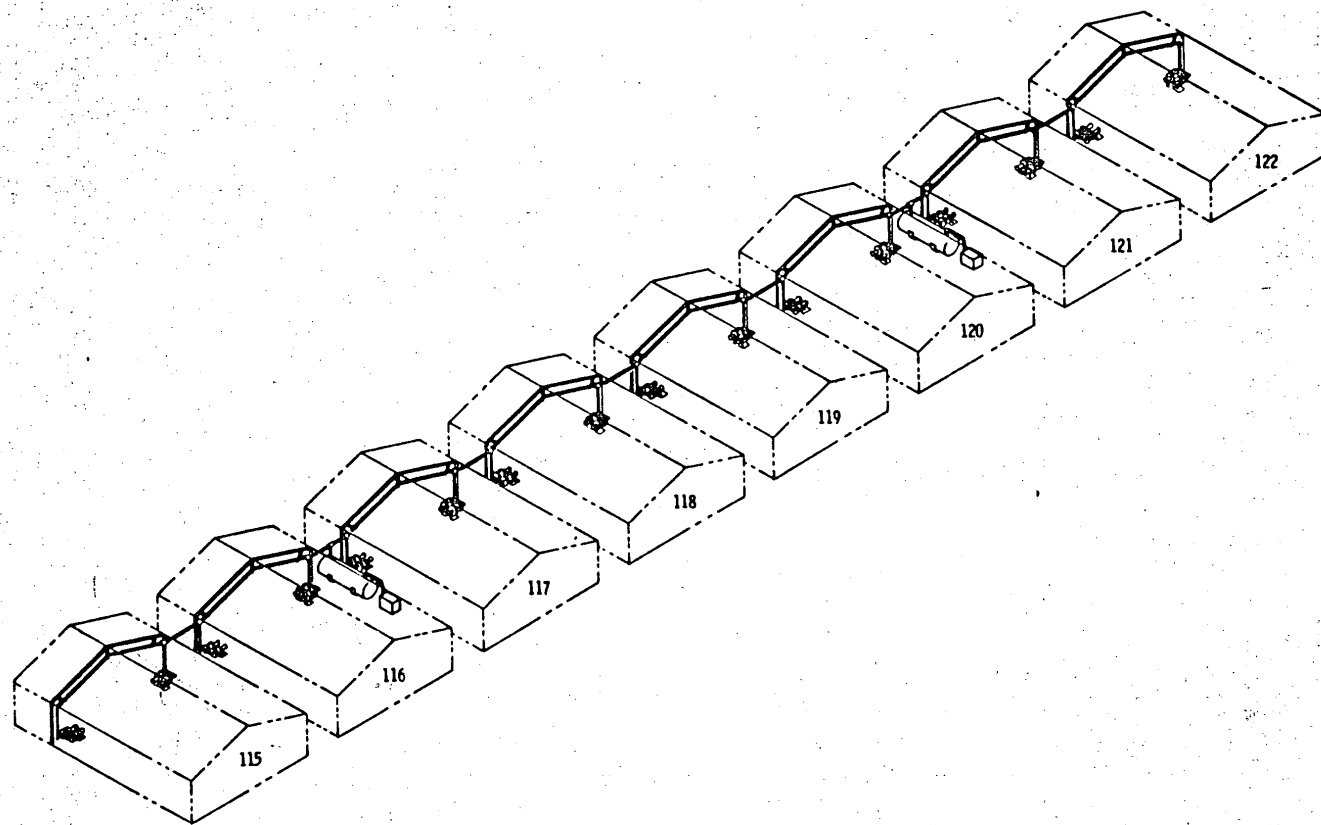
Approved For Release 2008/06/02 : CIA-RDP90B00170R000200290005-7

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T.M./AG2793-(6)

Fig 5

(5)