

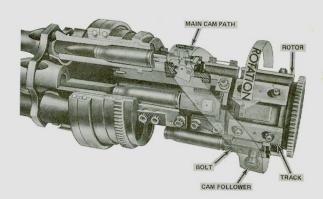
## Airborne and Surface Gun Systems



## M61A1, 20-MM Vulcan Gun

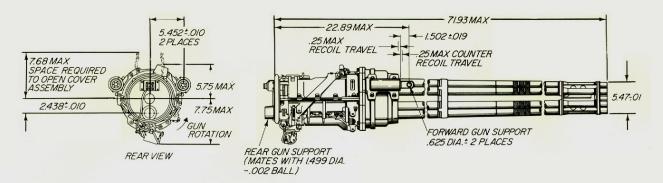
The M61A1 20-mm Vulcan is an externally powered gun having a cluster of six barrels capable of firing at rates of up to 6000 shotsper-minute. The gun is readily adaptable to a wide variety of aircraft and surface vehicles. The gun and either a linked or linkless feed system can be tailored to fit within available space in virtually any position.

The gun is basically a Gatling type mechanism. Each of the gun's six barrels fires only once during each revolution of the barrel cluster. Barrels are attached to the gun rotor by interrupted threads. No head space adjustment is required. The gun rotor is journalled within a stationary outer housing and contains the six gun bolts. The bolts slide fore and aft on tracks and provide the ram, lock, fire, unlock, and extracting functions. The stationary outer housing includes a main cam which drives the bolts through their respective functions. The six rotating barrels contribute to a long weapon life by minimizing barrel erosion and heat generation. This method of operation also stabilizes recoil forces and permits accurate predictions for design of mounting structures. "Cook offs" are eliminated by the low rate of fire per barrel and by either the automatic clearing feature which places all six bolt assemblies into hold-back at the end of each burst, or by using a declutching feeder which permits firing of all ammunition in the gun.



The M61A1 Vulcan gun currently arms the A-7D, A-7E, F-4E, F-14, F-15, F-111, F-106, A-10A prototypes, and lightweight fighter aircraft and in the SUU-16/A gun pod. The Vulcan Air Defense System uses a slightly modified M61A1. The predecessor to the M61A1, the M61, arms the F-104, F-105, and B-52H aircraft.





## CHARACTERISTICS

GUN		
Length		
0		
<u> </u>		
Gun Life		
BORE		
BARREL		
Barrel Life (per set)		20,000 rds. (Minimum)
AMMUNITION		
METHOD OF OPERATIO	N	Externally powered, Gatling type
		T :=1 - 1 - 1:=11
FEED SYSTEM		Linked or linkless
DATE OF FIRE		Variable to 6000 spm
RATE OF FIRE		variable to 0000 spin
MUZZLE VELOCITY		
MOZZZZ VZZG GITT		
AVERAGE RECOIL FOR	.CE	
@ 4000 spm		
		3818 lbs.
C coos spin 1 1 1		
POWER REQUIRED		
@ 4000 spm		8 h.p.
O 0000 op;		1
RELIABILITY		

For more information, write to:
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GENERAL (%) ELECTRIC