

Radar Assembly AN/APA-9, is an airborne navigational equipment designed to operate with the British Oboe Mark II navigation system. It is informally known as the "Aspen," and is functionally similar to the AAF Shoran system.

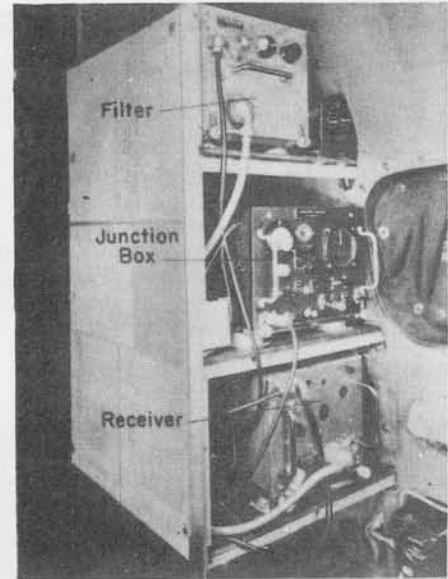
The "Aspen Kit", as Radar Assembly AN/APA-9 is called, essentially consists of an antenna; a modified AN/APS-2A modulating assembly with a RT Box; a mechanical bearing indicator, and certain minor components for operation of the set.

"Aspen" is a navigation system whereby the airborne equipment (AN/APA-9) acts as a transponder unit upon being triggered by the two ground interrogator beacons commonly known as the "Cat" and "Mouse" stations. By measuring, with accurate ranging circuits, the time required for the radar signal to make the "round-trip" (station-plane-station), the ground station computer can plot the airplane's location with an accuracy of 50 feet of his actual position.

Blind-bombing is accomplished by flying the aircraft along a given arc centered around the "Cat" station with the release point at a predetermined range from the "Mouse" station. The point of intersection of the pulse signal arcs from these two stations is the correct bomb release point. The bombardier is given aural warning and release signals by variation of pulse repetition rate from the "Mouse" station. The pilot is given left-right aural signals by variation of pulse repetition rate from the "CAT" station. One target can be attacked by this technique.

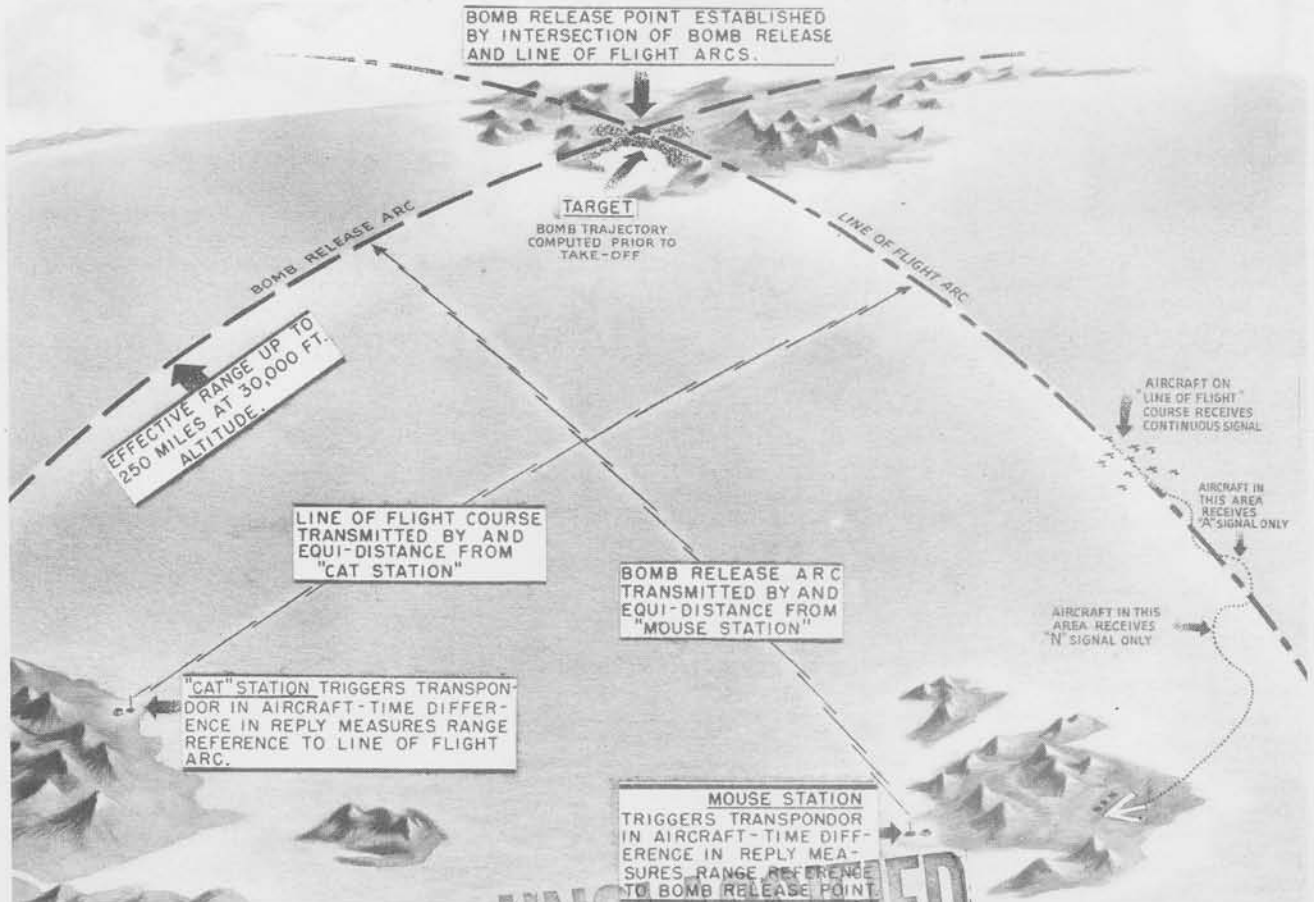
Ground Oboe stations are supplied by the British, while the airborne equipment is supplied by both the British and the United States.

Test equipment used for maintenance includes Test Set AN/CPM-1



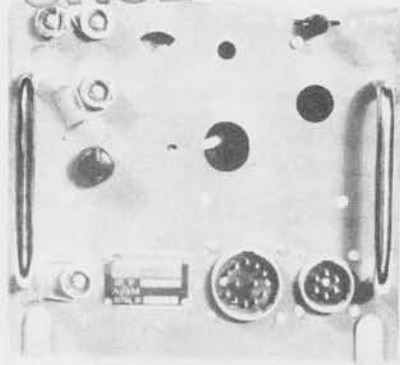
Installation AN/APA-9 in B-24

POWER INPUT	600 WATTS, 26 VOLTS DC
POWER OUTPUT	50 KW (PEAK)
FREQUENCY	3243-3155 MC
RANGE	250 MILES AT 30,000 FT.
ACCURACY	BOMBING 100 YARDS RANGE 20 YARDS

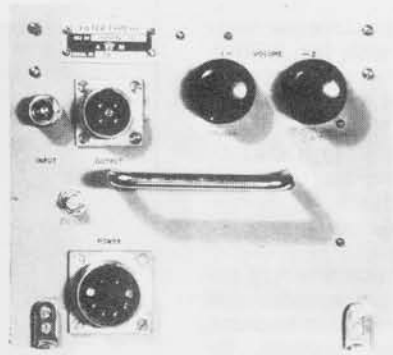


Radar Assembly AN/APA-9 ("ASPEN") is the airborne element of the OBOE Navigation System which in addition to facilitating precision blind bombing - may be used as a navigation device to direct reconnaissance or troop carrying aircraft to predetermined areas.

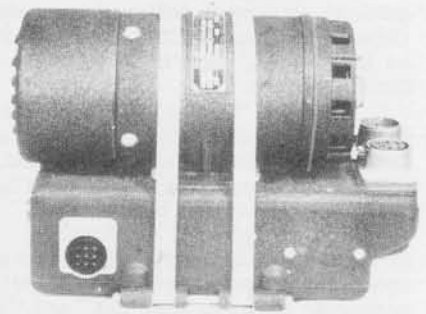
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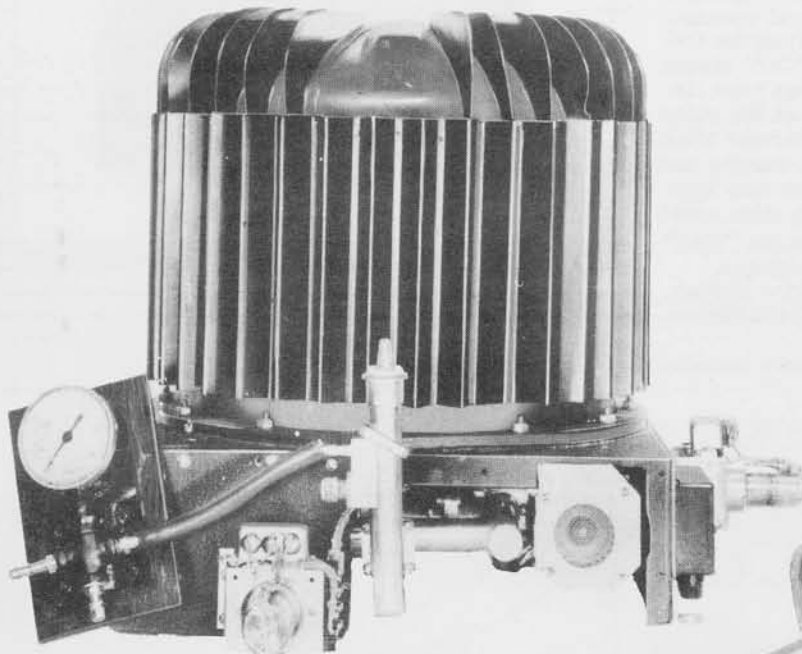
Penwiper Receiver



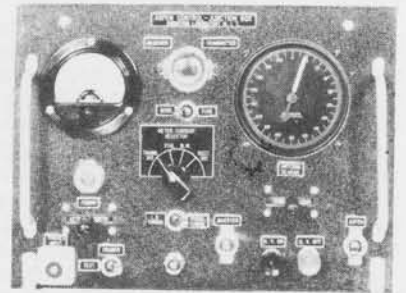
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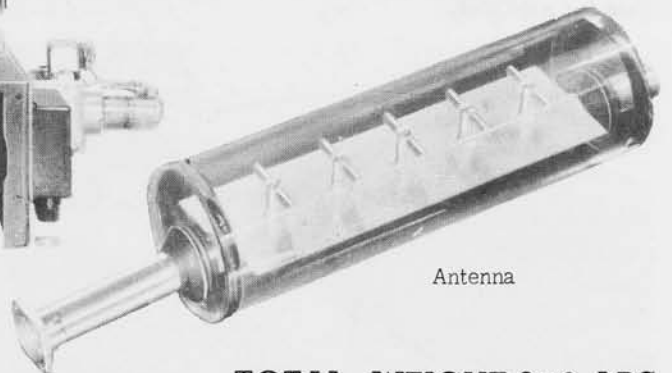
Motor Generator



Transmitter Converter



Control Box



Antenna

RADAR ASSEMBLY AN/APA-9

TOTAL WEIGHT 250 LBS.

Component	Nomenclature	Size	Weight
Control Box	C-10/APA-9		10 Lbs.
Antenna Assembly	AS-66/APA-9	Height 18" x Diam 4"	10 Lbs.
Jack Box	J-47/APA-9	5" x 4" x 3"	1 Lb.
Motor Generator	PU-43/A		30 Lbs.
Regulator Box	CN-10/A		10 Lbs.
Headset	H-14/A		
Transmitter Converter	RT-38/APA-9	24" x 24" x 24"	100 Lbs.
Control Box	C-84/APA-9	8" x 11" x 20"	32 Lbs.
Mounting	MT-157/APA-9	24" x 24" x 24"	10 Lbs.
Cord	CG-51/APA-9		5 Lbs.
Mounting	MT-176/APA-9		1 Lb.
Mounting	FT-447		
Mounting	MT-23/A		
Antenna Cover	CW-17/APA-9		5 Lbs.
Filter	British Supplied		
Mounting	FT-446	14" wide x 18" long	
Coupling	M-297		
Receiver			
Transformer			

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and includes plugs, ferrule, nuts, cords, connectors, cable clamps, Flexible conduit, adapters, cordage and misc. Cable.