Lockheed P2V Neptune

The Lockheed P2V Neptune is a multiple-engined maritime patrol and anti-submarine aircraft. Early versions had two rotary engines, but later versions added two auxiliary jet engines. In 1962, it was redesignated as the P-2.

In 1954, Lockheed converted five P2V-7s into P2V-7U electronic intelligence (ELINT) aircraft for the CIA. Armament was removed and in its place a wide and variable range of ELINT equipment was installed.

There were nominally assigned to the USAF and designated RB-69A. From 1957 to 1959, they were used by CIA crews for missions in Europe. From 1957 to 1966, they were flown by ROCAF crews from the 34th “Black Bats” Squadron on ELINT missions over mainland China. Five were lost, with at least three being shot down.

The normal load for an RB-69A would be two 200 gal (760L) FTs on the wing tips. From 1964, AIM-9B IRMs could be carried, but the low speed of the aircraft reduced the chance of a successful launch.

An ADC is provided for the:

- P2V-7U

P2V-7U Neptune

Crew: Pilot, Co-Pilot, Third Pilot, Flight Engineer, Navigator, Navigator, Radar Navigator, Radar Navigator, ECM Officer, ECM Officer, Radio Operator, Observer, and Observer

Power APs/DPs/FPs:

	CL	1/2	DT	Fuel
FT	1.5	1.5	1.0	2.0
HT	1.0	1.0	0.5	1.0
N	0.0	0.0	0.0	0.2
I	0.5	0.5	0.5	0.0
SPBR	—	—	—	—

If speed ≥ 3.0, reduce power by 0.5.

Cruise Speed:	2.5	Restr. Arcs:	60–
Climb Speed:	2.0	Blind Arcs:	30L
Visibility:	9	Internal Fuel:	940
Size:	–2	AtA Refuel:	No
Vulnerability:	+1	Ejection Seat:	None

Maneuver HFPs/DPs:

LR/DR	—	—
VR		—

Turn DPs:

	CL	1/2	DT
TT	0.0	0.0	0.5
HT	1.0	1.0	1.0
BT	2.0	—	—
ET	—	—	—

No rolling maneuvers allowed.

Speeds and Ceilings

Alt. Band	Conf. Ceil.	CL 22	1/2 18	DT 12	Dive Speed
EH+	46+	—	—	—	—
VH	36–45	—	—	—	—
HI	26–35	—	—	—	—
MH	17–25	—	—	—	—
ML	8–16	—	—	1.5 – 3.5	4.0
LO	0–7	—	—	1.5 – 3.0	4.0

Climb Capabilities

Alt. Band	CL AB	CL Oth	1/2 AB	1/2 Oth	DT AB	DT Oth	Alt. Band
EH+	—	—	—	—	—	—	EH+
VH	—	—	—	—	—	—	VH
HI	—	—	—	—	—	—	HI
MH	—	—	—	—	—	—	MH
ML	—	—	—	—	—	0.25	ML
LO	—	—	—	—	—	0.25	LO

Radar:	APQ-24	**ECM:**	IFF
ECCM:	1	RWR:	C
Arcs:	180+	DDS:	A
Search:	Gr. Nav. (180)	DJM:	B4
Track:	Gr. Attack (120)	AJM:	B4
Lock-On:	0	BJM:	B3

Weapon Stations Diagram:

Guns:	—
To Hit:	—
Ammunition:	—
Gunsight:	—
Ranging:	—
AtA/AtG:	—
Bomb System:	Manual

Technology:

TFR-A

Load Point Limits: CL : 0–0; 1/2: 1–1; DT : 2+

Weight Limit: 10,600

Station	Limit	Allowed Loads
1 and 7	1,300	FT
2–3 and 5–6	150	IRM
4	8,000	

Load Notes:

1. Stations 1 and 7 are the wing-tip stations. They always carry 400 gal (760L) FTs.
2. May use AIM-9B IRMs from 1964. Apply a launch modifier of +1 for each 0.5 speed below 3.0.
3. Station 4 is the internal bomb bay. It can carry a supply pod or a leaflet dispenser.
4. The weight of the internal ELINT equipment is sufficient that the aircraft is always considered to be DT.

Notes:

1. The Lockheed P2V-7U Neptune is an electronic intelligence (ELINT) aircraft. It is an specialized adaptation of the P2V-7. It was formally assigned to the USAF and designated the RB-69A.
2. Low roll rate (LRR).
3. Flight Restrictions. VD, VC, and unloading are forbidden.
4. The aircraft has two propeller engines and two jet engines. HT uses the propeller engines. FT uses both the propeller and jet engines. When the power setting is HT or less, reduce the maximum speed by 1.0.
5. DDS is available from 1959 and can dispense CH only.
6. BJM is available from 1959.
7. AJM is available from 1962.
8. TFR-A is available from 1964.

VPs: 25/17/8/4

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