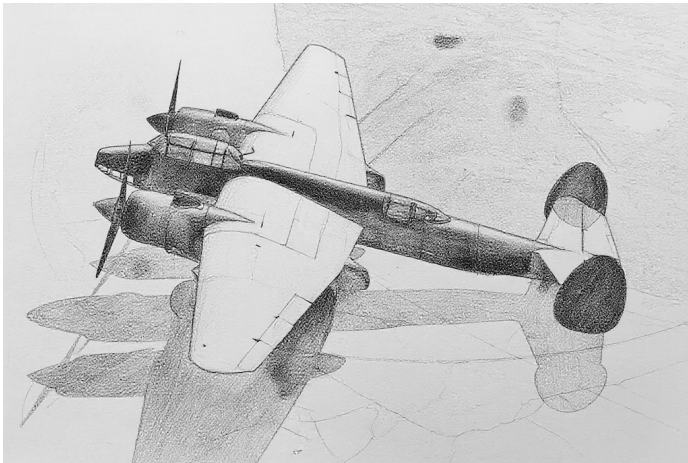


# Tupolev Tu-2



The Tupolev Tu-2 was a propeller-driven medium bomber that served in WW2 and after. Its NATO reporting name is Bat.

## Versions

### *Tu-2*

The Tu-2 was the initial version and entered service in small numbers with the Soviet VVS in 1942. Although well regarded, production was suspended in favor of fighters and the Pe-2 light bomber.

### *Tu-2S*

In 1943, production restarted of the improved Tu-2S version. This version had improved and more powerful ASH-82FNs engines, a four-bladed propeller in place of the earlier three-bladed one, changes to the structure and systems, including elimination of the dive brakes to simplify production and improve robustness, removal of the fixed forward machine guns, and improved defensive armament in the form of three single 12.7 mm UBT machine guns.

The Tu-2S served in the VVS from early 1944 until 1955. It also served with the Bulgarian Air Force, Chinese PLAAF, Hungarian Air Force, North Korean KPAF, Polish Air Force and Navy, and Romanian Air Force. Indonesia later received a few ex-Chinese Tu-2S aircraft.

### *Tu-2P*

The PLAAF developed the Tu-2P to intercept overflights by ROCAF aircraft. The RP-1 radar from the J-5A (MiG-17PF) was installed in the nose, and two 23 mm NR-23 cannons replaced the 20 mm cannons in the wings. Defensive armament was deleted. The radar was modified to eliminate the lower part of the scan, which reduced ground clutter at the cost of only being able to detect and track targets at the

same or higher altitude.

Several PLAAF aircraft were converted in 1959.

## Armament and Stores

The Tu-2S was armed with two fixed 20mm ShVAK cannons in the wing roots and three 12.7mm UBT defensive guns in single mounts operated by the navigator, the radio operator, and the ventral gunner. In the Tu-2P, the fixed guns were replaced by a pair of 23mm NR-23 cannons, and the defensive guns presumably removed.

A typical bomb load for the Tu-2S would be three 1,000 kg bombs (one carried internally and one under each wing), four 250 kg bombs (two carried internally and one under each wing), or nine 100 kg bombs (all carried internally).

## Combat

The Tu-2S saw combat in WW2, with Chinese communist forces in the Chinese Civil War, with the PLAAF and KPAF in the Korean War, and with the PLAAF in the 1959 Tibetan Uprising and associated conflicts before and after.

The Tu-2P saw combat in November 1960 when three PLAAF aircraft attempted to intercept a ROCAF P2V. Two of the three flew into terrain, and the P2V escaped.

## ADCs

- Tu-2S
- Tu-2P

## Photo Credit

- Tu-2: SDASM Archives (Public Domain)

<div>Tu-2S</div> <div><div>Power APs/DPs: ☉☉</div><table><tr><td>CL</td><td>1/2</td><td>DT</td><td>Fuel</td></tr><tr><td>FT</td><td>1.0</td><td>1.0</td><td>1.0</td></tr><tr><td>HT</td><td>0.5</td><td>0.5</td><td>0.5</td></tr><tr><td>N</td><td>0.0</td><td>0.0</td><td>0.0</td></tr><tr><td>I</td><td>1.0</td><td>1.0</td><td>1.0</td></tr><tr><td>SPBR</td><td>—</td><td>—</td><td>—</td></tr></table><div>If speed ≥ 3.0, reduce power by 0.5.</div></div>						CL	1/2	DT	Fuel	FT	1.0	1.0	1.0	HT	0.5	0.5	0.5	N	0.0	0.0	0.0	I	1.0	1.0	1.0	SPBR	—	—	—	<div>Crew: Pilot, Navigator/Gunner, Radio Operator/Gunner, and Ventral Gunner</div> <div><div>Maneuver DPs:</div><table><tr><td>LR/DR</td><td>2.5</td></tr><tr><td>VR</td><td>1.5</td></tr></table><div>Turn DPs:</div><table><tr><td></td><td>CL</td><td>1/2</td><td>DT</td></tr><tr><td>TT</td><td>0.50</td><td>0.50</td><td>0.75</td></tr><tr><td>HT</td><td>0.75</td><td>1.00</td><td>1.00</td></tr><tr><td>BT</td><td>1.25</td><td>—</td><td>—</td></tr><tr><td>ET</td><td>—</td><td>—</td><td>—</td></tr></table></div>						LR/DR	2.5	VR	1.5		CL	1/2	DT	TT	0.50	0.50	0.75	HT	0.75	1.00	1.00	BT	1.25	—	—	ET	—	—	—
						CL	1/2	DT	Fuel																																																		
						FT	1.0	1.0	1.0																																																		
						HT	0.5	0.5	0.5																																																		
N	0.0	0.0	0.0																																																								
I	1.0	1.0	1.0																																																								
SPBR	—	—	—																																																								
LR/DR	2.5																																																										
VR	1.5																																																										
	CL	1/2	DT																																																								
TT	0.50	0.50	0.75																																																								
HT	0.75	1.00	1.00																																																								
BT	1.25	—	—																																																								
ET	—	—	—																																																								
Cruise Spd. CL: 2.5    Restr. Arcs: 30–																																																											
Climb Spd.: 2.0    Blind Arcs: —																																																											
Visibility: 7    Internal Fuel: 200																																																											
Size: –1    AtA Refuel: No																																																											
Vulnerability: +1    Ejection Seat: None																																																											
Speeds and Ceilings						Climb Capabilities																																																					
Alt. Band	Conf. Ceil.	CL 24	1/2 20	DT 14	Dive Speed	CL AB	Oth	1/2 AB	Oth	DT AB	Oth																																																
EH+	46+	—	—	—	—	—	—	—	—	—	—	EH+																																															
VH	36–45	—	—	—	—	—	—	—	—	—	—	VH																																															
HI	26–35	2.0 – 3.0	—	—	4.5	—	0.25	—	—	—	—	HI																																															
MH	17–25	1.5 – 3.0	2.0 – 3.0	—	4.5	—	0.25	—	0.25	—	—	MH																																															
ML	8–16	1.5 – 3.5	1.5 – 3.0	2.0 – 3.0	4.0	—	0.50	—	0.25	—	0.25	ML																																															
LO	0–7	1.5 – 3.0	1.5 – 3.0	2.0 – 3.0	4.0	—	0.50	—	0.50	—	0.25	LO																																															
Radar: —						ECM: —						Weapon Stations Diagram:																																															
ECCM: —						RWR: —																																																					
Arcs: —						DDS: —																																																					
Search: —						DJM: —																																																					
Track: —						AJM: —																																																					
Lock-On: —						BJM: —																																																					
Guns: Two 20 mm ShVaK						Technology: None						Load Point Limits: CL : < 3																																															
To Hit: 5/3/0												1/2: < 7																																															
Ammunition: 8.0												Weight Limit: 6,600 DT : ≥ 7																																															
Gunsight: TT+0/HT+2/BT+3												Station Limit Allowed Loads																																															
Ranging: —												1 and 3 2,200 BB																																															
AtA/AtG: 3/3*												2 2,200 BB																																															
Bomb System: Manual												Load Notes:																																															
Notes: 1. The Tupolev Tu-2S is a light bomber. The NATO reporting name is Bat. 2. Low roll rate (LRR). 3. Articulated Guns. In addition to its fixed guns, the Tu-2 is equipped with three 12.7 mm UBT machine guns in rear-facing single mounts that are operated by the navigator, radio operator, and ventral gunner. The guns can fire into the 60– arc. They may return fire twice per game turn in response to gun attacks or conduct one attack. The hit rolls are 3/2/2 and the only modifiers are target size. The AtA damage rating is 2. The ammunition is 8.0.												1. Stations 1 and 3 are under-wing stations. Load options for each are: (a) one 2,200 lb bombs or (b) one 550 lb bombs.																																															
												2. Station 2 is the internal bomb bay. Load options are: (a) one 2,200 lb bombs, (b) two 550 lb bombs, or (c) nine 220 lb bombs. Any bombs carried must be low-drag.																																															
												3. As an exception to the normal rules for load points, internal loads contribute 1 load point for each 1,000 of weight and internal fuel contributes 1 load point for each 50 fuel points. A return mission will typically require leaving the target with at least 65 fuel points (1.3 load points).																																															
						VPs: 6/4/2/1						v3 0000000 0000-00-00T00:00:00																																															

Tu-2P										Crew: Pilot, Radar Operator, Navigator, and Radio Operator							
										Maneuver DPs:							
LR/DR 2.5																	
VR 1.5																	
Turn DPs:																	
Power APs/DPs: ☉☉					CL 1/2 DT Fuel					CL 1/2 DT							
					FT 1.0 1.0 1.0 1.0					TT 0.50 0.50 0.75							
					HT 0.5 0.5 0.5 0.5					HT 0.75 1.00 1.00							
					N 0.0 0.0 0.0 0.2					BT 1.25 — —							
I 1.0 1.0 1.0 0.0					Cruise Spd. CL: 2.5 Restr. Arcs: 30– Climb Spd.: 2.0 Blind Arcs: — Visibility: 7 Internal Fuel: 200 Size: –1 AtA Refuel: No Vulnerability: +1 Ejection Seat: None					ET — — —							
SPBR — — — —																	
If speed ≥ 3.0, reduce power by 0.5.																	
Speeds and Ceilings						Climb Capabilities											
Alt. Conf.		CL		1/2		DT		Dive		CL		1/2		DT			
Band Ceil.		24		20		14		Speed		AB Oth		AB Oth		AB Oth			
EH+ 46+		—		—		—		—		— —		— —		— —		EH+	
VH 36–45		—		—		—		—		— —		— —		— —		VH	
HI 26–35		2.0 – 3.0		—		—		4.5		— 0.25		— —		— —		HI	
MH 17–25		1.5 – 3.0		2.0 – 3.0		—		4.5		— 0.25		— 0.25		— —		MH	
ML 8–16		1.5 – 3.5		1.5 – 3.0		2.0 – 3.0		4.0		— 0.50		— 0.25		— 0.25		ML	
LO 0–7		1.5 – 3.0		1.5 – 3.0		2.0 – 3.0		4.0		— 0.50		— 0.50		— 0.25		LO	
Radar: RP-1 Izumrud					ECM:					Weapon Stations Diagram:							
ECCM: 0					RWR: —												
Arcs: Limited					DDS: —												
Search: 18–6					DJM: —												
Track: 6–6					AJM: —												
Lock-On: 6					BJM: —												
Guns: Two 23 mm NR-23					Technology:					Load Point Limits: CL : < 3							
To Hit: 4/2/1					None					1/2: < 7							
Ammunition: 3.0										Weight Limit: 6,600 DT : ≥ 7							
Gunsight: TT+0/HT+2/BT+3										Station Limit Allowed Loads							
Ranging: RE										1 and 3 2,200 BB							
AtA/AtG: 4/3										2 2,200 BB							
Bomb System: Manual										Load Notes:							
Notes: 1. The Tupolev Tu-2P is a night interceptor. A few Tu-2S were converted by the PLAAF by adding the radar from the J-5A (MiG-17PF) and replacing the 20 mm cannons with 23 mm NR-23 cannons. The NATO reporting name is Bat. 2. Low roll rate (LRR). 3. Modified Radar Scan. In level flight, the radar may detect and track targets at equal or higher altitude, regardless of the altitude of the target, but may not detect targets at lower altitude. In diving or climbing flight, it may only detect targets at higher altitude. 4. Gun Muzzle Flash. If the guns are fired at night, for the rest of the current game turn and during the following two game turns, the aircraft may not sight, may not conduct any attack that requires the target to be sighted, and is considered to be flying in adverse weather conditions.					1. Stations 1 and 3 are under-wing stations. Load options for each are: (a) one 2,200 lb bombs or (b) one 550 lb bombs.												
					2. Station 2 is the internal bomb bay. Load options are: (a) one 2,200 lb bombs, (b) two 550 lb bombs, or (c) nine 220 lb bombs. Any bombs carried must be low-drag.												
					3. As an exception to the normal rules for load points, internal loads contribute 1 load point for each 1,000 of weight and internal fuel contributes 1 load point for each 50 fuel points. A return mission will typically require leaving the target with at least 65 fuel points (1.3 load points).												
					VPs: 12/8/4/2							v3 0000000 0000-00-00T00:00:00					