Tupolev Tu-4

The Tupolev Tu-4 was a propeller-driven strategic bomber. As it provided the Soviet Union for the first time with the ability to conduct a one-way strike on peripheral cities in the continental US, including Los Angeles and Chicago, it spurred the development and deployment of defensive interceptors and SAMs. This effort gained further urgency when the Soviet Union demonstrated its first nuclear bomb. The NATO reporting name for the Tu-4 is Bull.

Versions

Tu-4

The Tu-4 was largely reverse-engineered from Boeing B-29As that had made emergency landings in the USSR during WWII and were subsequently interned. It was, however, fitted with Soviet Shvetsov ASh-73 engines and auxiliary equipment. Furthermore, the .50 cal machine guns on the original B-29A were replaced by more powerful 23 mm NS-23 cannons, with two in each turret and two in the tail position. The RPB Kobal't attack radar was a copy of the B-29's APQ-13 radar; its NATO reporting name is Mushroom.

The Tu-4 entered service with the Soviet DA VS (Long-Range Aviation) in large numbers in 1949. In addition to service in the DA VS, a small number were used by the Chinese PLAAF from 1953.

Tu-4A

The Tu-4A version was a nuclear bomber and the counterpart of the Silverplate and Saddletree variants of the B-29A. Armament and armor were sacrificed to give longer range.

The Tu-4A served only in the Soviet DA VS.

Tu-4P

The Tu-4P version was a conversion carried out by the Chinese PLAAF to create a night fighter specifically to counter ROCAF intruders. The navigation radar was moved from its normal ventral position to a radome in place of the forward dorsal turret, creating a basic all-round air-search radar. The bomb bay was used as an air-intercept command post, and the guns were equipped with a basic infrared sight.

A few Tu-4P aircraft served with the PLAAF in 1960.

Armament and Stores

A typical bomb load for the conventional Tu-4 would be six 1,000 kg bombs in the internal bays.

The nuclear Tu-4A could carry the RDS-1, -3, and -5 nuclear bombs.

Combat

Only the Tu-4P saw combat.

ADCs

- Tu-4
- Tu-4A
- Tu-4P

See Also

- Boeing B-29 Superfortress

Photo Credit

- Tu-4: Pavel Adzhigildaev (CC BY-SA 3.0)

Tu-4

Crew: Pilot, Co-pilot, Bombardier, Flight Engineer, Navigator, Radio Operator, Radar Observer, Right Gunner, Left Gunner, Fire Control Officer, and Tail Gunner

Power APs/DPs: ⊙⊙⊙⊙

	CL	1/2	DT	Fuel
FT	0.5	0.5	0.5	2.0
HT	0.2	0.2	0.2	1.0
N	0.0	0.0	0.0	0.4
I	1.0	1.0	1.0	0.0
SPBR	—	—	—	—

If speed ≥ 3.0, reduce power by 0.2.

Cruise Spd. CL:	2.0	Restr. Arcs:	—
Climb Spd.:	2.0	Blind Arcs:	—
Visibility:	10	Internal Fuel:	2900
Size:	−2	AtA Refuel:	No
Vulnerability:	+2	Ejection Seat:	None

Maneuver HFPs/DPs:

LR/DR	—	—
VR		—

Turn DPs:

	CL	1/2	DT
TT	1.0	—	—
HT	—	—	—
BT	—	—	—
ET	—	—	—

No rolling maneuvers allowed.

Speeds and Ceilings / Climb Capabilities

Alt. Band	Conf. Ceil.	CL 40	1/2 37	DT 32	Dive Speed	CL AB	CL Oth	1/2 AB	1/2 Oth	DT AB	DT Oth	
EH+	46+	—	—	—	—	—	—	—	—	—	—	EH+
VH	36–45	1.5 – 3.5	1.5 – 3.5	—	4.5	—	0.25	—	0.10	—	—	VH
HI	26–35	1.0 – 4.0	1.5 – 4.0	1.5 – 3.5	4.5	—	0.50	—	0.25	—	0.10	HI
MH	17–25	1.0 – 3.5	1.0 – 3.5	1.0 – 3.5	4.5	—	0.50	—	0.25	—	0.25	MH
ML	8–16	1.0 – 3.5	1.0 – 3.5	1.0 – 3.0	4.0	—	0.50	—	0.25	—	0.25	ML
LO	0–7	1.0 – 3.0	1.0 – 3.0	1.0 – 3.0	3.5	—	0.50	—	0.25	—	0.25	LO

Radar: RPB Kobal't

ECCM:	0
Arcs:	0+
Search:	Gr. Nav. (120)
Track:	Gr. Attack (60)
Lock-On:	6

ECM: IFF

RWR:	A
DDS:	—
DJM:	—
AJM:	—
BJM:	A2

Weapon Stations Diagram:

Guns: Ten 23 mm NS-23

To Hit:	2/1/1
Ammunition:	11.0
Gunsight:	—
Ranging:	—
AtA/AtG:	4/4

Bomb System: Manual

Technology:

None

Load Point Limits:

CL : 0–11
1/2: 12–23
DT : 24+

Weight Limit: 20,000

Station	Limit	Allowed Loads
1 and 2	10,000	BB FT

Load Notes:
1. Stations 1 and 2 are the forward and rear internal bays. Each can carry up to (a) two 1,500 kg (3,300 lb) FAB-1500 M46 bombs, (b) six 500 kg (1,100 lb) FAB-500 M46 bombs, (c) twelve 250 kg (550 lb) FAB-250 M46 bombs, or (d) two special 2400L FTs. All bombs must be the same type.
2. 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 750 fuel points (15 load points).

Notes:
1. The Tupolev Tu-4 is a propeller-driven strategic conventional bomber. It is a reverse-engineered version of the Boeing B-29A. The NATO reporting name for the aircraft is Bull.
2. Low roll rate (LRR).
3. Flight Restrictions. VD, VC, and unloading are forbidden.
4. Articulated Guns. The guns can fire in any direction. They may return fire twice per game turn in response to gun attacks or conduct one attack. The hit rolls are modified only by the target size and a −1 modifier when firing into the 60− arc.

VPs: 24/16/8/4

Tu-4A

Crew: Pilot, Copilot, Flight Engineer, Navigator, Bombardier, Weaponeer, Radio Operator, Radar Operator, Countermeasures Operator, and Tail Gunner

Power APs/DPs: ⊙⊙⊙⊙

	CL	1/2	DT	Fuel
FT	0.5	0.5	0.5	2.0
HT	0.2	0.2	0.2	1.0
N	0.0	0.0	0.0	0.4
I	1.0	1.0	1.0	0.0
SPBR	—	—	—	—

If speed ≥ 3.0, reduce power by 0.2.

Cruise Spd. CL:	2.0	Restr. Arcs:	—
Climb Spd.:	2.0	Blind Arcs:	—
Visibility:	10	Internal Fuel:	2900
Size:	−2	AtA Refuel:	No
Vulnerability:	+1	Ejection Seat:	None

Maneuver HFPs/DPs:

LR/DR	—	—
VR		—

Turn DPs:

	CL	1/2	DT
TT	1.0	—	—
HT	—	—	—
BT	—	—	—
ET	—	—	—

No rolling maneuvers allowed.

Speeds and Ceilings / Climb Capabilities

Alt. Band	Conf. Ceil.	CL 40	1/2 37	DT 32	Dive Speed	CL AB	CL Oth	1/2 AB	1/2 Oth	DT AB	DT Oth	
EH+	46+	—	—	—	—	—	—	—	—	—	—	EH+
VH	36–45	1.5 – 3.5	1.5 – 3.5	—	4.5	—	0.25	—	0.10	—	—	VH
HI	26–35	1.0 – 4.0	1.5 – 4.0	1.5 – 3.5	4.5	—	0.50	—	0.25	—	0.10	HI
MH	17–25	1.0 – 3.5	1.0 – 3.5	1.0 – 3.5	4.5	—	0.50	—	0.25	—	0.25	MH
ML	8–16	1.0 – 3.5	1.0 – 3.5	1.0 – 3.0	4.0	—	0.50	—	0.25	—	0.25	ML
LO	0–7	1.0 – 3.0	1.0 – 3.0	1.0 – 3.0	3.5	—	0.50	—	0.25	—	0.25	LO

Radar:	RPB Kobal't
ECCM:	0
Arcs:	0+
Search:	Gr. Nav. (120)
Track:	Gr. Attack (60)
Lock-On:	6

ECM:	IFF
RWR:	A
DDS:	—
DJM:	—
AJM:	—
BJM:	A2

Weapon Stations Diagram:

Guns:	Two 23 mm NS-23
To Hit:	3/2/2
Ammunition:	11.0
Gunsight:	—
Ranging:	—
AtA/AtG:	4/4

Bomb System:	Manual

Technology:

None

Load Point Limits: CL : 0–11 / 1/2: 12–23

Weight Limit: 20,000 / DT : 24+

Station	Limit	Allowed Loads
1 and 2	10,000	BB FT

Load Notes:
1. Station 1 is the internal bomb bay. It can carry either (a) one RDS-1 nuclear bomb (weight 10,000), (b) one RDS-3 nuclear bomb (weight 8000), or (c) one RDS-5 nuclear bomb (weight unknown).
2. Station 2 is the rear internal bomb bay and can carry two special 2400L FTs.
3. Exceptionally, internal fuel also contributes 1 load point per 50 fuel points. A return mission will typically require leaving the target with at least 750 fuel points (15 load points).

Notes:
1. The Tupolev Tu-4 is a propeller-driven strategic nuclear bomber. It is a reverse-engineered version of the Boeing B-29A. The NATO reporting name for the aircraft is Bull.
2. Low roll rate (LRR).
3. Flight Restrictions. VD, VC, and unloading are forbidden.
4. Articulated Guns. The guns can only fire at targets in the 60– arc. They may return fire twice per game turn in response to gun attacks or conduct one attack. The hit rolls are modified only by the target size.

VPs: 24/16/8/4

Tu-4P

Power APs/DPs: ⊙⊙⊙⊙

	CL	1/2	DT	Fuel
FT	0.5	0.5	0.5	2.0
HT	0.2	0.2	0.2	1.0
N	0.0	0.0	0.0	0.4
I	1.0	1.0	1.0	0.0
SPBR	—	—	—	—

If speed ≥ 3.0, reduce power by 0.2.

Cruise Spd. CL:	2.0	Restr. Arcs:	—
Climb Spd.:	2.0	Blind Arcs:	—
Visibility:	10	Internal Fuel:	2900
Size:	−2	AtA Refuel:	No
Vulnerability:	+2	Ejection Seat:	None

Maneuver HFPs/DPs:

LR/DR	—	—
VR		—

Turn DPs:

	CL	1/2	DT
TT	1.0	—	—
HT	—	—	—
BT	—	—	—
ET	—	—	—

No rolling maneuvers allowed.

Speeds and Ceilings

Alt. Band	Conf. Ceil.	CL 40	1/2 37	DT 32	Dive Speed
EH+	46+	—	—	—	—
VH	36–45	1.5 – 3.5	1.5 – 3.5	—	4.5
HI	26–35	1.0 – 4.0	1.5 – 4.0	1.5 – 3.5	4.5
MH	17–25	1.0 – 3.5	1.0 – 3.5	1.0 – 3.5	4.5
ML	8–16	1.0 – 3.5	1.0 – 3.5	1.0 – 3.0	4.0
LO	0–7	1.0 – 3.0	1.0 – 3.0	1.0 – 3.0	3.5

Climb Capabilities

	CL AB	CL Oth	1/2 AB	1/2 Oth	DT AB	DT Oth	
EH+	—	—	—	—	—	—	EH+
VH	—	0.25	—	0.10	—	—	VH
HI	—	0.50	—	0.25	—	0.10	HI
MH	—	0.50	—	0.25	—	0.25	MH
ML	—	0.50	—	0.25	—	0.25	ML
LO	—	0.50	—	0.25	—	0.25	LO

Radar:	RPB Kobal't	**ECM:**	IFF
ECCM:	0	RWR:	A
Arcs:	All	DDS:	—
Search:	120–8	DJM:	—
Track:	—	AJM:	—
Lock-On:	—	BJM:	A2

Weapon Stations Diagram:

Guns:	Eight 23 mm NS-23
To Hit:	2/1/1
Ammunition:	11.0
Gunsight:	—
Ranging:	—
AtA/AtG:	4/4

Bomb System: Manual

Technology:

None

Load Point Limits: CL : 0–11 / 1/2: 12–23

Weight Limit: 20,000   DT : 24+

Station **Limit** **Allowed Loads**

Load Notes:
1. No stores may be carried. The internal bomb bay is used to house an air-intercept control post.

Notes:
1. The Tupolev Tu-4P is a propeller-driven night intercepter converted from the Tu-4 bomber. The NATO reporting name is Bull.
2. Low roll rate (LRR).
3. Flight Restrictions. VD, VC, and unloading are forbidden.
4. Dorsal Radar. In level flight, the radar may detect 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.
5. Articulated Guns. The guns can fire in any direction. They may return fire twice per game turn in response to gun attacks or conduct one attack. The hit rolls are modified only by the target size and a −1 modifier when firing into the 60− arc.

VPs: 24/16/8/4