

## Lockheed F-80/T-33 Shooting Star

The Lockheed F-80 Shooting Star was a day fighter and fighter-bomber. It had unswept wings and a single Allison J33 centrifugal-flow jet engine. It entered service with the USAAF shortly before the end of WWII, but did not see combat until the Korean War, in which it served extensively with the USAF as a fighter and fighter bomber. Like other early jet fighters with unswept wings, it was found to have inferior performance to the MiG-15bis and was replaced by variants of the F-86 Sabre. It later served with the air forces of Brazil, Chile, Colombia, Ecuador, Peru, and Uruguay.

The P-80A was the first version to enter service and was armed with six .50 cal M2 machine guns in the nose. It was followed by the P-80B, which replaced the M2 machine guns with faster-firing M3 machine guns, used an ejection seat, and many minor improvements. The P-80C was produced in larger numbers than both previous versions. In USAF service from 1948, the P-80 was designated the F-80.

Like many early jet fighters, the F-80 suffered from short range. This was mitigated by the provision of jettisonable wing-tip fuel tanks. These stations were designed for 165 gal tanks, but these were found to be insufficient for missions over Korea from the USAF bases in Japan. A local field modification produced the 265 gal "Misawa" tank, which gave usefully greater range and loiter time, at the cost of overloading the wing-tip stations.

The F-80C was armed with six .50 cal M3 machine guns with 300 rounds per gun. A typical weapon load for F-80Cs engaged in ground-attack missions in the Korean War was two 500 lb M64 bombs or 110 gal (750 lb) napalm bombs often supplemented by four or eight HVAR rockets on the inner-wing stations. Although bombs could in theory be carried on the wing-tip stations, this does not appear to have occurred in practice. When flying from Japan, the weapon load was often limited to four HVARs rockets.

The RF-80C was an unarmed photo-reconnaissance version of the F-80C, with cameras replacing the machine guns in the nose. It was used by the USAF.

The T-33 Shooting Star (known informally as the "T-Bird") was a two-seater trainer developed from the F-80. Most T-33As were unarmed, but a number had two .50 cal M3 machine guns. The T-33A was used by the USAF, USN, RCAF, and the air forces of Bangladesh, Belgium, Bolivia, Brazil, Burma, Canada, Chile, Republic of China (Taiwan), Colombia, Cuba, Denmark, Dominican Republic, Ethiopia, Ecuador, El Salvador, France, Federal Republic of Germany, Greece, Guatemala, Honduras, Indonesia, Iran, Italy, Japan, Libya, Mexico, Netherlands, Nicaragua, Nor-

way, Pakistan, Paraguay, Peru, Philippines, Portugal, Saudi Arabia, Singapore, South Korea, Spain, Thailand, Turkey, Uruguay, and Yugoslavia. Cuban T-33As saw combat during the Bay of Pigs invasion.

The RT-33A was a photo-reconnaissance version of the T-33A developed for foreign use. The nose was replaced with one with oblique and vertical cameras and the rear cockpit was used for equipment relocated from the nose of the T-33A and for additional fuel. It was used by the air forces of Belgium, Chile, Colombia, Ethiopia, France, Greece, Italy, Iran, Netherlands, Pakistan, Portugal, Saudi Arabia, Taiwan, Turkey, Thailand, and Yugoslavia. One was also used by the USAF for Project Field Goal, clandestine reconnaissance missions over Laos in the early 1960s.

Some T-33As were converted into AT-33A light attack aircraft by adding under-wing pylons to the machine guns. The AT-33A was used as a trainer by the USAF and also by the air forces of Brazil, Burma, Dominican Republic, Ecuador, Greece, Mexico, Nicaragua, Paraguay, and Uruguay.

- F-80C
- RF-80C
- T-33A
- RT-33A
- AT-33A

### See Also

- Lockheed F-94

<b>F-80C Shooting Star</b>					Crew: Pilot																																
					Maneuver HFPs/DPs:																																
<b>Power APs/DPs:</b> ○ <table border="1"> <tr><td>CL</td><td>1/2</td><td>DT</td><td>Fuel</td><td></td></tr> <tr><td>AB</td><td>—</td><td>—</td><td>—</td><td>—</td></tr> <tr><td>M</td><td>1.0</td><td>1.0</td><td>1.0</td><td>1.0</td></tr> <tr><td>N</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.5</td></tr> <tr><td>I</td><td>1.0</td><td>1.0</td><td>1.0</td><td>0.0</td></tr> <tr><td>SPBR</td><td>1.0</td><td>1.0</td><td>1.0</td><td>—</td></tr> </table>					CL	1/2	DT	Fuel		AB	—	—	—	—	M	1.0	1.0	1.0	1.0	N	0.0	0.0	0.0	0.5	I	1.0	1.0	1.0	0.0	SPBR	1.0	1.0	1.0	—	LR/DR	1.0	1.5
CL	1/2	DT	Fuel																																		
AB	—	—	—	—																																	
M	1.0	1.0	1.0	1.0																																	
N	0.0	0.0	0.0	0.5																																	
I	1.0	1.0	1.0	0.0																																	
SPBR	1.0	1.0	1.0	—																																	
					VR	0.5																															
<b>Turn DPs:</b> <table border="1"> <tr><td>CL</td><td>1/2</td><td>DT</td></tr> <tr><td>TT</td><td>0.0</td><td>0.0</td><td>0.0</td></tr> <tr><td>HT</td><td>1.0</td><td>1.0</td><td>1.0</td></tr> <tr><td>BT</td><td>1.0</td><td>1.0</td><td>2.0</td></tr> <tr><td>ET</td><td>—</td><td>—</td><td>—</td></tr> </table>					CL					1/2	DT	TT	0.0	0.0	0.0	HT	1.0	1.0	1.0	BT	1.0	1.0	2.0	ET	—	—	—										
CL	1/2	DT																																			
TT	0.0	0.0	0.0																																		
HT	1.0	1.0	1.0																																		
BT	1.0	1.0	2.0																																		
ET	—	—	—																																		
Cruise Spd. CL: 4.0 Restr. Arcs: — Climb Spd.: 3.0 Blind Arcs: 30– Visibility: 5 Internal Fuel: 135 Size: +0 AtA Refuel: No Vulnerability: +1 Ejection Seat: Early																																					
Speeds and Ceilings					Climb Capabilities																																
Alt. Band	Conf. Ceil.	CL 45	1/2 40	DT 35	Dive Speed	CL AB Oth	1/2 AB Oth	DT AB Oth																													
EH+	46+	—	—	—	—	— —	— —	— —	EH+																												
VH	36–45	2.5 – 4.0	2.5 – 4.0	—	6.0	— 0.5	— 0.5	— —	VH																												
HI	26–35	2.0 – 4.5	2.5 – 4.5	2.5 – 4.0	6.5	— 0.5	— 0.5	— 0.5	HI																												
MH	17–25	2.0 – 5.0	2.0 – 4.5	2.5 – 4.5	6.5	— 0.5	— 0.5	— 0.5	MH																												
ML	8–16	1.5 – 5.5	2.0 – 5.0	2.0 – 4.5	6.5	— 1.0	— 0.5	— 0.5	ML																												
LO	0–7	1.5 – 5.5	1.5 – 5.5	2.0 – 5.0	6.5	— 1.0	— 1.0	— 0.5	LO																												
<b>Radar:</b> —		<b>ECM:</b> IFF	<b>Weapon Stations Diagram:</b>																																		
ECCM: —		RWR: —																																			
Arcs: —		DDS: —																																			
Search: —		DJM: —																																			
Track: —		AJM: —																																			
Lock-On: —		BJM: —																																			
<b>Guns:</b> Six .50 cal M3		<b>Technology:</b> None			<b>Load Point Limits:</b>																																
To Hit: 6/3/0					CL : 0–3 1/2: 4–6																																
Ammunition: 8.0					<b>Weight Limit:</b> 4,200																																
Gunsight: TT+0/HT+1/BT+2					DT : 7+																																
Ranging: —					<b>Station</b> <b>Limit</b> <b>Allowed Loads</b>																																
AtA/AtG: 4/4**					1 and 8      1,100      BB FT																																
<b>Bomb System:</b> Manual					2 and 7      1,100      BB RK																																
<b>Notes:</b>					3–4 and 5–6      280      BB RK																																
1. The Lockheed F-80C Shooting Star is a day fighter and fighter-bomber. Prior to 1948 it was designated P-80C. 2. High transonic drag (HTD).					<b>Load Notes:</b>																																
					1. The wing-tip stations 1 and 8 were designed to each carry a 165 gal (600L) FT with a load of 1100 when full. As an exception to the normal loading rules, they may each carry a 265 gal (1000L) FT with a load of 1800 when full, but the maximum turn rate is reduced to HT until the FTs are jettisoned. Such "Misawa" tanks were used in 1950 when operating over Korea from bases in Japan. 2. Stations 3 to 6 can each carry two HVAR RKs.																																
					<b>VPs:</b> 7/5/2/1																																
					v2.0000000 0000-00-00T00:00:00																																

<b>RF-80C Shooting Star</b>					Crew: Pilot				
					<b>Maneuver HFPs/DPs:</b>				
<b>Power APs/DPs:</b> ○					LR/DR	1.0	1.5		
					VR	—	0.5		
					<b>Turn DPs:</b>				
					CL	1/2	DT		
					TT	0.0	0.0	0.0	
					HT	1.0	1.0	1.0	
					BT	1.0	1.0	2.0	
					ET	—	—	—	

T-33A Shooting Star								<b>Crew:</b> Pilot and Copilot		
								<b>Maneuver HFPs/DPs:</b>		
								LR/DR	1.0	1.5
								VR	0.5	
<b>Power APs/DPs:</b>								<b>Turn DPs:</b>		
								CL	1/2	DT
AB	—	—	—	—				TT	0.0	0.0
M	1.0	1.0	1.0	1.0				HT	1.0	1.0
N	0.0	0.0	0.0	0.5				BT	1.0	1.0
I	1.0	1.0	1.0	0.0	Cruise Spd. CL: 4.0			ET	—	—
SPBR	1.0	1.0	1.0	—	Restr. Arcs: —					
					Climb Spd.: 3.0					
					Blind Arcs: 30–					
					Visibility: 5					
					Internal Fuel: 112					
					Size: +0					
					AtA Refuel: No					
					Vulnerability: +1					
					Ejection Seat: Early					

Speeds and Ceilings						Climb Capabilities						
Alt. Band	Conf. Ceil.	CL 45	1/2 40	DT 35	Dive Speed	CL AB	1/2 AB	DT AB		CL Oth	1/2 Oth	DT Oth
EH+	46+	—	—	—	—	—	—	—	—	—	—	EH+
VH	36–45	2.5 – 4.0	2.5 – 4.0	—	6.0	—	0.5	—	0.5	—	—	VH
HI	26–35	2.0 – 4.5	2.5 – 4.5	2.5 – 4.0	6.5	—	0.5	—	0.5	—	0.5	HI
MH	17–25	2.0 – 5.0	2.0 – 4.5	2.5 – 4.5	6.5	—	0.5	—	0.5	—	0.5	MH
ML	8–16	1.5 – 5.5	2.0 – 5.0	2.0 – 4.5	6.5	—	1.0	—	0.5	—	0.5	ML
LO	0–7	1.5 – 5.5	1.5 – 5.5	2.0 – 5.0	6.5	—	1.0	—	1.0	—	0.5	LO

RT-33A Shooting Star								Crew: Pilot			
								Maneuver HFPs/DPs:			
<b>Power APs/DPs:</b> ○								LR/DR	1.0	1.5	
								VR		0.5	
				<b>Turn DPs:</b>							
								CL	1/2	DT	
AB	—	—	—	—				TT	0.0	0.0	0.0
M	1.0	1.0	1.0	1.0				HT	1.0	1.0	1.0
N	0.0	0.0	0.0	0.5				BT	1.0	1.0	2.0
I	1.0	1.0	1.0	0.0	Cruise Spd. CL: 4.0	Restr. Arcs:	—	ET	—	—	—
SPBR	1.0	1.0	1.0	—	Climb Spd.: 3.0	Blind Arcs:	30–				
					Visibility: 5	Internal Fuel:	165				
					Size: +0	AtA Refuel:	No				
					Vulnerability: +1	Ejection Seat:	Early				
Speeds and Ceilings								Climb Capabilities			
Alt. Band	Conf. Ceil.	CL 45	1/2 40	DT 35	Dive Speed	CL AB Oth	1/2 AB Oth	DT AB Oth			
EH+	46+	—	—	—	—	— —	— —	— —			EH+
VH	36–45	2.5 – 4.0	2.5 – 4.0	—	6.0	— 0.5	— 0.5	— 0.5			VH
HI	26–35	2.0 – 4.5	2.5 – 4.5	2.5 – 4.0	6.5	— 0.5	— 0.5	— 0.5			HI
MH	17–25	2.0 – 5.0	2.0 – 4.5	2.5 – 4.5	6.5	— 0.5	— 0.5	— 0.5			MH
ML	8–16	1.5 – 5.5	2.0 – 5.0	2.0 – 4.5	6.5	— 1.0	— 0.5	— 0.5			ML
LO	0–7	1.5 – 5.5	1.5 – 5.5	2.0 – 5.0	6.5	— 1.0	— 1.0	— 0.5			LO

<b>AT-33A Shooting Star</b>									<b>Crew:</b> Pilot and Copilot			
<b>Power APs/DPs:</b> ○									<b>Maneuver HFPs/DPs:</b>			
CL    1/2    DT    Fuel									LR/DR	1.0	1.5	
AB    —    —    —    —									VR	—	0.5	
M    1.0    1.0    1.0    1.0									<b>Turn DPs:</b>			
N    0.0    0.0    0.0    0.5									CL	1/2	DT	
I    1.0    1.0    1.0    0.0									TT	0.0	0.0	0.0
SPBR    1.0    1.0    1.0    —									HT	1.0	1.0	1.0
Cruise Spd. CL: 4.0    Restr. Arcs: —									BT	1.0	1.0	2.0
Climb Spd.: 3.0    Blind Arcs: 30–									ET	—	—	—
Visibility: 5    Internal Fuel: 112												
Size: +0    AtA Refuel: No												
Vulnerability: +1    Ejection Seat: Early												

<b>Speeds and Ceilings</b>					<b>Climb Capabilities</b>					
Alt.	Conf.	CL	1/2	DT	Dive Speed	CL AB	1/2 AB	DT AB	Oth Oth	
Band	Ceil.	45	40	35						
EH+	46+	—	—	—	—	—	—	—	—	EH+
VH	36–45	2.5 – 4.0	2.5 – 4.0	—	6.0	—	0.5	—	0.5	VH
HI	26–35	2.0 – 4.5	2.5 – 4.5	2.5 – 4.0	6.5	—	0.5	—	0.5	HI
MH	17–25	2.0 – 5.0	2.0 – 4.5	2.5 – 4.5	6.5	—	0.5	—	0.5	MH
ML	8–16	1.5 – 5.5	2.0 – 5.0	2.0 – 4.5	6.5	—	1.0	—	0.5	ML
LO	0–7	1.5 – 5.5	1.5 – 5.5	2.0 – 5.0	6.5	—	1.0	—	0.5	LO

<b>Radar:</b> —	<b>ECM:</b> —	<b>Weapon Stations Diagram:</b>								
ECCM: —	RWR: —									
Arcs: —	DDS: —									
Search: —	DJM: —									
Track: —	AJM: —									
Lock-On: —	BJM: —									
<b>Guns:</b> Two .50 cal M3	<b>Technology:</b> None	<b>Load Point Limits:</b>								
To Hit: 4/2/–		CL : 0–3								
Ammunition: 8.0		1/2: 4–6								
Gunsight: TT+0/HT+1/BT+2		<b>Weight Limit:</b> 4,200								
Ranging: —		DT : 7+								
AtA/AtG: 1/2**		<b>Station</b> <b>Limit</b> <b>Allowed Loads</b>								
<b>Bomb System:</b> Manual		1 and 8      1,500      BB FT								
<b>Notes:</b>		2 and 7      1,100      BB RK								
1. The Lockheed AT-33A Shooting Star is a close-air-support version of the T-33A trainer. 2. High transonic drag (HTD).		3–4 and 5–6      280      BB RK								
		<b>Load Notes:</b>								
		1. May use 850L FTs. 2. Stations 3 to 6 can each carry two HVAR RKS.								