

Polikarpov I-15bis Chato

Country: Soviet Union

Service Entry Date: 1936

A/C Type: Day fighter
 Engine(s): One Shvetsov M-25B radial
 Eng. Pwr: 750 hp, air-cooled, Non-F.I.
 A/C Crew: Pilot

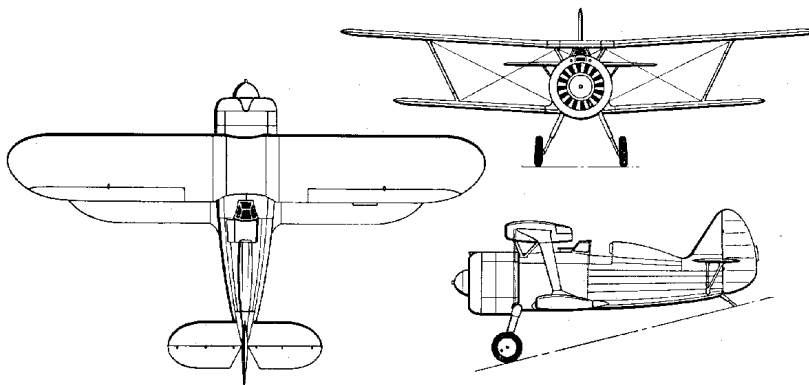
Maximum Speed: 229 mph at 13,100 ft
 Maximum Ceiling: 26,100 ft.

Defense factor: 5 Size Modifier: +0
 Damage Factor: 5/7 Endurance: 90
 Cockpit View: Fair Blind Area: Rear

Protection: Cockpit +1 Fuel +0 Engine +0

Climb Decel/ Dive Accel: 3.0 / 1.0
 Weight and Load Limit: 500 / 2-3

Wpn Stations Weight Allowed Loads
 1,2 (i-15bis only) 250 lbs 1x 50 kg bomb or
 2x 25 kg bomb or
 3x RS-82 rkts or
 1x 22-gal FT



Class: F

Victory Points: 2-4

AIRCRAFT PERFORMANCE CHART

Altitude Levels	Bands	Minimum Speed	Maximum Speed	Maximum Dive Spd	Min TT(1)	Min HT(2)	Min BT(2)	Min ET(3)	Altitude Levels	Bands	Average Rate of Climb
43+	UH	--	--	--	--	--	--	--	43+	UH	--
37-42	EH	--	--	--	--	--	--	--	37-42	EH	--
31-36	VH	--	--	--	3.0	4.0	5.0	6.0	31-36	VH	--
25-30	HI	2.0	3.5	7.0	2.5	3.5	4.5	5.5	25-30	HI	600
19-24	MH	2.0	4.0	10.0	2.5	3.0	4.0	5.0	19-24	MH	1000
13-18	ML	1.5	4.5	10.0	2.0	2.5	3.5	4.5	13-18	ML	1400
7-12	LO	1.5	4.0	9.0	2.0	2.5	3.0	4.0	7-12	LO	2000
1-6	VL	1.5	3.5	7.5	1.5	2.0	2.5	3.5	1-6	VL	2500

FIRE POWER CHART

Guns	Type Weapons	Ammo	Criticals
N1	Two 7.62mm ShKAS mg	9	4
N2	Two 7.62mm ShKAS mg	9	4
N3	Two 7.62mm PV-1 mg	28	4
N4	Two 7.62mm PV-1 mg	28	4

GUN ATTACK FACTORS

Range	N1	N2	N3	N4	Total
0	19	19	9	9	38/18
1	15	15	6	6	30/12
2	10	10	4	4	20/8
3	6	6	3	3	12/6
4	4	4	2	2	8/4
5	3	3	1	1	6/2
6	--	--	--	--	--
7	--	--	--	--	--

WEAPON STATION LOCATION

1

2

POWER VERSUS SPEED CHART

Levels	Bands	1.0 - 4.5	5.0 - 7.5	8.0 - 9.5	10.0+	Band
43+	UH	--	--	--	--	UH
37-42	EH	--	--	--	--	EH
31-36	VH	--	--	--	--	VH
25-30	HI	1	--	--	--	HI
19-24	MH	2	--	--	--	MH
13-18	ML	5	--	--	--	ML
7-12	LO	6	--	--	--	LO
1-6	VL	6	--	--	--	VL
Banking FPs		1	2	3	--	
Side Slip FPs		2	3	4	--	

NOTES AND VARIANTS

Polikarpov I-15 series: Highly maneuverable biplane fighters built by the Soviet Union. Protection from rear only. Open cockpit. No radio. Fixed gear.

Polikarpov I-15: Available 1934. 635-715 hp M-25 engine: +1 accel, +300 roc; Ceiling: 32,800. View: Good Fought in Spain and China until replacd by I-15bis. Armed with PV-1 mgs; use N3 and N4, and the total to the right of the slash. No load stations. 744 built.

Polikarpov I-15bis (I-152): Available 1936. Armed with 4 ShKAS mgs. Use N1 and N2 only and total left of slash. Sent to Spain in 1936, China in 1937, Mongolia in 1939, and the Winter War in Finland. Performed well until it met the Me109B and A5M2. Still in use during Barbarossa as dive-bomber/ground support (shot down in droves). More than 2300 built.

22-gal FT: Wgt: 200 Ld: 1.5/1.0 End: +40 each

Polikarpov I-153 Chaika

A/C Type: Day fighter
 Engine(s): One Shvetsov M-62R radial
 Eng. Pwr: 1000 hp, air-cooled, Non-F.I.
 A/C Crew: Pilot

Maximum Speed: 277 mph at 15,600 ft
 Maximum Ceiling: 35,100 ft./31,200 ft/26,000 ft

Defense factor: 5 Size Modifier: +0
 Damage Factor: 5/8 Endurance: 96
 Cockpit View: Good Blind Area: Rear

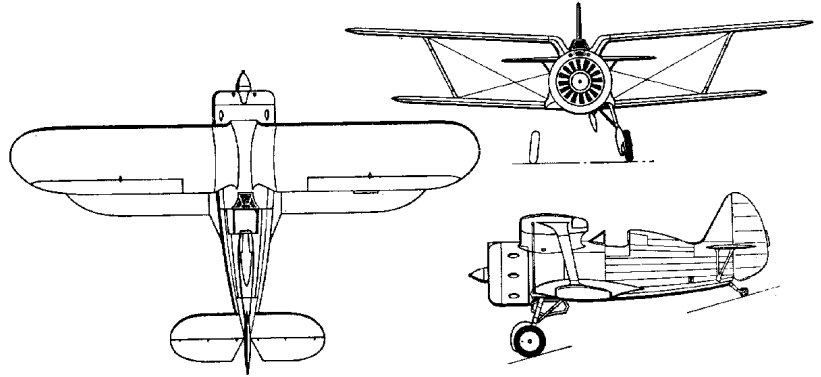
Protection: Cockpit +1 Fuel +0 Engine +0

Climb Decel/ Dive Accel: 3.0 / 1.0
 Weight and Load Limit: 500 / 2-4

Wpn Stations Weight Allowed Loads
 1, 2 250 lbs 1x 50 kg bomb or
 2x 25 kg bombs or
 3x RS-82 rkts or
 1x 22-gal FT

Country: Soviet Union

Service Entry Date: January, 1938



Class: F

Victory Points: 2-4

AIRCRAFT PERFORMANCE CHART

Altitude		Minimum	Maximum	Maximum	Min	Min	Min	Min	Altitude		Average
Levels	Bands	Speed	Speed	Dive Spd	TT(2)	HT(3)	BT(3)	ET(4)	Levels	Bands	Rate of Climb
43+	UH	--	--	--	--	--	--	--	43+	UH	--
37-42	EH	--	--	--	--	--	--	--	37-42	EH	--
31-36	VH	2.5	4.0	7.5	3.0	4.0	5.0	6.0	31-36	VH	400
25-30	HI	2.5	4.5	8.0	2.5	3.5	4.5	5.5	25-30	HI	1,100
19-24	MH	2.0	5.0	8.0	2.5	3.0	4.0	5.0	19-24	MH	1,700
13-18	ML	2.0	5.5	8.5	2.0	2.5	3.5	4.5	13-18	ML	2,400
7-12	LO	1.5	5.0	7.5	2.0	2.5	3.0	4.0	7-12	LO	3,100
1-6	VL	1.5	4.5	6.5	1.5	2.0	2.5	3.5	1-6	VL	3,300

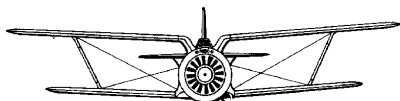
FIRE POWER CHART

Guns	Type Weapons	Ammo	Criticals
N1	Two 7.62mm ShKAS mg	10	4
N2	Two 7.62mm ShKAS mg	10	4

GUN ATTACK FACTORS

Range	N1	N2	Total
0	19	19	38
1	15	15	30
2	10	10	20
3	6	6	12
4	4	4	8
5	3	3	6
6	--	--	--
7	--	--	--

WEAPON STATION LOCATION



1

2

POWER VERSUS SPEED CHART

Levels	Bands	1.0 - 4.5	5.0 - 7.5	8.0 - 9.5	10.0+	Band
43+	UH	--	--	--	--	UH
37-42	EH	--	--	--	--	EH
31-36	VH	2	--	--	--	VH
25-30	HI	4	--	--	--	HI
19-24	MH	6	3	--	--	MH
13-18	ML	7	4	--	--	ML
7-12	LO	8	5	--	--	LO
1-6	VL	8	--	--	--	VL
Banking FPs		1	2	3	--	
Side Slip FPs		2	3	4	--	

NOTES AND VARIANTS

Polikarpov I-153 Chaika (Seagull): Available 1938. Final version of I-15 biplane series. Very maneuverable and much faster than the I-152; a surprise to the Japanese in Mongolia (1939). Used in the Winter War (Finland, 39-40). The Finns captured enough to man a squadron. Still serving in frontline units during Barbarossa; shot down in droves. Used for ground support until Sturmoviks came on line. Protection from the rear only. Open cockpit. Retractable gear. More than 3400 built.

22-gal FT: Wgt: 200

Ld: 1.5/1.0

End: +35 each

Polikarpov I-16 Type 10

A/C Type: Day fighter
 Engine(s): One Shvetsov M-25V radial
 Eng. Pwr: 750-775 hp, Air-cooled, Non-F.I.
 A/C Crew: Pilot

Maximum Speed: 283 mph at 10,100 ft
 Maximum Ceiling: 26,100 ft / 22,500 ft

Defense factor: 5 Size Modifier: +0
 Damage Factor: 5/8 Endurance: 114
 Cockpit View: Fair Blind Area: Rear

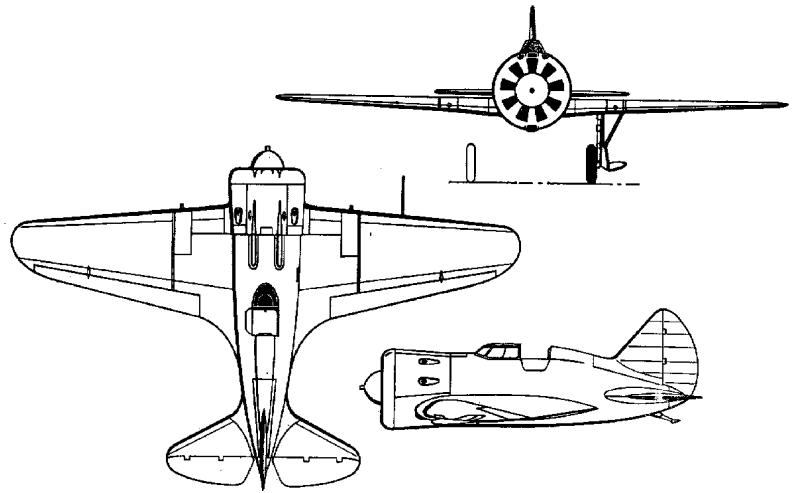
Protection: Cockpit +0 Fuel +0 Engine +0

Climb Decel/ Dive Accel: 3.0 / 1.0
 Weight and Load Limit: 400 / 2-3

Wpn Stations Weight Allowed Loads
 1, 2 (Type 10) 200 6x RS-82 rockets
 (Type 5/6 only) 1x 50 kg bomb or
 2x 25 kg bombs

Country: Soviet Union

Service Entry Date: November 1937



Class: F

Victory Points: 3-5

AIRCRAFT PERFORMANCE CHART

Altitude		Minimum	Maximum	Maximum	Min	Min	Min	Min	Altitude		Average
Levels	Bands	Speed	Speed	Dive Spd	TT(3)	HT(4)	BT(5)	ET(6)	Levels	Bands	Rate of Climb
43+	UH	--	--	--	--	--	--	--	43+	UH	--
37-42	EH	--	--	--	--	--	--	--	37-42	EH	--
31-36	VH	--	--	--	--	--	--	--	31-36	VH	--
25-30	HI	2.5	4.0	8.0	3.5	5.0	6.0	7.0	25-30	HI	900
19-24	MH	2.0	4.5	8.0	3.0	4.5	5.5	6.0	19-24	MH	1,600
13-18	ML	2.0	5.0	8.5	2.5	4.0	5.0	5.5	13-18	ML	2,100
7-12	LO	1.5	5.5	8.5	2.5	3.0	4.5	5.0	7-12	LO	2,300
1-6	VL	1.5	4.5	7.5	2.0	2.5	3.5	4.5	1-6	VL	2,400

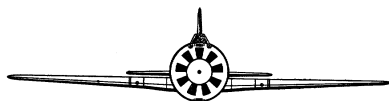
FIRE POWER CHART

Guns	Type Weapons	Ammo	Criticals
N1	Two 7.62mm ShKAS mg	10	4
W1	One 7.62mm ShKAS mg	15	4
W2	One 7.62mm ShKAS mg	15	4

GUN ATTACK FACTORS

Range	N1	W1	W2	Total
0	19	10	10	38/20
1	15	8	8	31/16
2	10	5	5	20/10
3	6	3	3	12/6
4	4	2	2	8/4
5	3	2	2	7/4
6	--	--	--	--
7	--	--	--	--

WEAPON STATION LOCATION



1

2

POWER VERSUS SPEED CHART

Levels	Bands	1.0 - 4.5	5.0 - 7.5	8.0 - 9.5	10.0+	Band
43+	UH	--	--	--	--	UH
37-42	EH	--	--	--	--	EH
31-36	VH	--	--	--	--	VH
25-30	HI	1	--	--	--	HI
19-24	MH	2	--	--	--	MH
13-18	ML	5	2	--	--	ML
7-12	LO	7	4	--	--	LO
1-6	VL	7	--	--	--	VL
Banking FPs		1	2	3	--	
Side Slip FPs		1	2	4	--	

NOTES AND VARIANTS

Polikarpov I-16: Series of monoplane fighters developed at the same time as the I-15 series. Called *Rata* (Rat) by foes in Spain; *Abu* (Gadfly) by the Japanese; *Mosca* (Fly) by Russian pilots. Sluggish in the turn, high roll rate. Longitudinally unstable at slow speeds (+1 to gunnery rolls if speed <4.0). Protection from the rear only. Open cockpit.

Type 5/6: Available 1935. 730 hp engine (-1 accel ML-; + 200 roc); W1 and W2 only (use total to right of slash). Introduced over Spain and China. Telescopic sight. 2200 built.

Type 10: First I-16 produced in large numbers. Sent to Spain (475 all types) and China in 1938; performed acceptably against all foes except Bf109Bs. About 3000 built.

Polikarpov I-16 Type 24

A/C Type: Day fighter
 Engine(s): One Shmetsov M-63 radial
 Eng. Pwr: 1000-1100 hp, air-cooled, Non-F.I.
 A/C Crew: Pilot

Maximum Speed: 303 mph at 11000
 Maximum Ceiling: 29,300 ft.

Defense factor: 5 Size Mod: +0
 Damage Factor: 6/9 Endurance: 90
 Cockpit View: Fair Blind Area: Rear,low

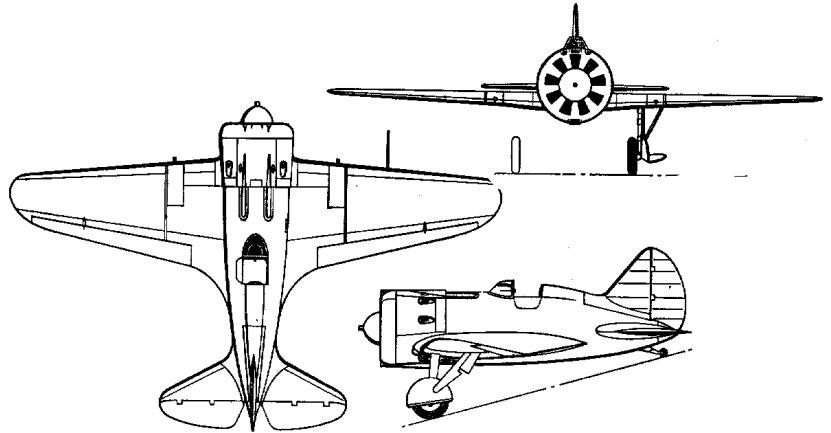
Protection: Cockpit +1 Fuel +0 Engine +0

Climb Dece/ Dive Accel: 3.0 / 1.0
 Weight and Load Limit: None

Wpn Stations Weight Allowed Loads
 1, 2 250 1x 100 kg bomb or
 2x 50 kg bombs or
 3x RS-82 rkts or
 1x 22-gal FT

Country: Soviet Union

Service Entry Date: 1939



Class: F

Victory Points: 3-5

AIRCRAFT PERFORMANCE CHART

Altitude		Minimum	Maximum	Maximum	Min	Min	Min	Min	Altitude		Average
Levels	Bands	Speed	Speed	Dive Spd	TT(3)	HT(4)	BT(5)	ET(6)	Levels	Bands	Rate of Climb
43+	UH	--	--	--	--	--	--	--	43+	UH	--
37-42	EH	--	--	--	--	--	--	--	37-42	EH	--
31-36	VH	--	--	--	--	--	--	--	31-36	VH	--
25-30	HI	3.0	5.0	9.0	3.5	4.5	6.0	7.5	25-30	HI	300
19-24	MH	2.5	5.5	9.0	3.5	4.0	5.5	7.0	19-24	MH	1,100
13-18	ML	2.0	6.0	9.0	3.0	4.0	5.0	6.5	13-18	ML	1,900
7-12	LO	2.0	6.0	8.5	3.0	3.5	4.5	6.0	7-12	LO	2,500
1-6	VL	2.0	5.0	8.0	3.0	3.5	4.5	5.5	1-6	VL	2,800

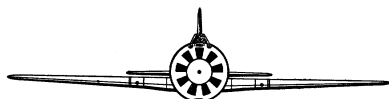
FIRE POWER CHART

Guns	Type Weapons	Ammo	Criticals
N1	Two 7.62mm ShKAS mg	10	4
W1	One 20mm ShVAK canon	5	2
W2	One 20mm ShVAK canon	5	2

GUN ATTACK FACTORS

Rng	N1	W1	W2	Total
0	19	27	27	73
1	15	20	20	55
2	10	13	13	36
3	6	9	9	24
4	4	6	6	16
5	3	4	4	11
6	--	3	3	6
7	--	--	--	--

WEAPON STATION LOCATION



1

2

POWER VERSUS SPEED CHART

Levels	Bands	1.0 - 4.5	5.0 - 7.5	8.0 - 9.5	10.0+	Band
43+	UH	--	--	--	--	UH
37-42	EH	--	--	--	--	EH
31-36	VH	--	--	--	--	VH
25-30	HI	3	--	--	--	HI
19-24	MH	5	2	--	--	MH
13-18	ML	7	4	--	--	ML
7-12	LO	8	5	--	--	LO
1-6	VL	8	5	--	--	VL
Banking FPs		1	2	3	6	
Side Slip FPs		1	2	4	7	

NOTES AND VARIANTS

Polikarpov I-16: Series of monoplane fighters developed at the same time as the I-15 series. Called *Rata* (Rat) by foes in Spain. Sluggish in the turn, high roll rate. Longitudinally unstable at slow speeds (+1 to gunnery rolls if speed <4.0). Open cockpit. Cockpit protection from the rear only.

Type 24: The last major production model. Used 1100-hp Smetsov M-63 engine. Few models served in Spain before that conflict ended; more successful against Japanese Army Air Force Ki.27s than earlier models. Used against Finland during the Winter War. Still on front line service during Barbarossa as a fighter, they were shot down in droves. Later used rocket-armed for ground support duty (42-43).

22-gal FT: Wgt: 200

Ld: 1.5/1.0

End: +30 each

Mikoyan-Gurevich MiG-3

A/C Type: High Altitude Interceptor
 Engine(s): One Mikulin AM-35A inline V-12
 Eng. Pwr: 1350 hp, liquid-cooled
 A/C Crew: Pilot

Maximum Speed: 398 mph @22,965 ft
 Maximum Ceiling: 39,300 ft.

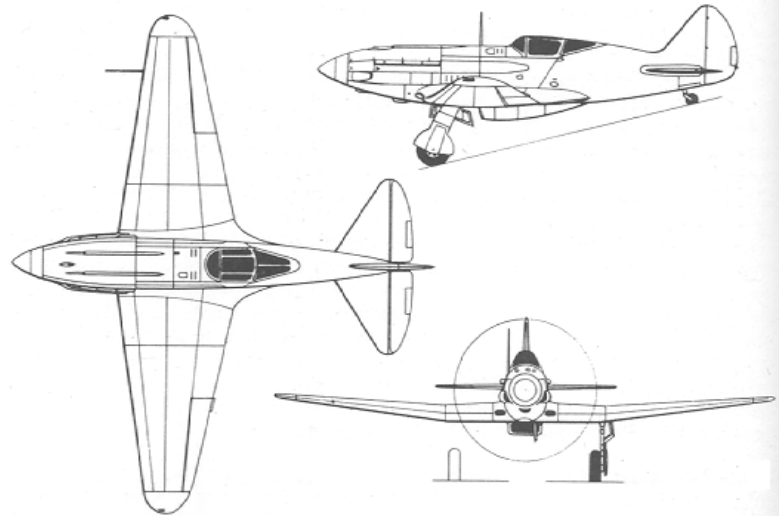
Defense factor: 5 Size Modifier: +0
 Damage Factor: 7/11 Endurance: 148
 Cockpit View: Poor Blind Area: Rear

Protection: Cockpit +1 Fuel +0 Engine +0
 Climb Dece/ Dive Accel: 3.0 / 1.0
 Weight and Load Limit: 440 / 2-5

Wpn Stations Weight Allowed Loads
 1, 2 (1943+ only) 220 1x 100 kg bomb or
 2x 50 kg bombs or
 3x RS-82 rkts or
 1x UBS mg gp

Country: Soviet Union

Service Entry Date: Nov. 1941



Class: F

Victory Points: 4-7

AIRCRAFT PERFORMANCE CHART

Altitude Levels	Bands	Minimum Speed	Maximum Speed	Maximum Dive Spd	Min TT(4)	Min HT(5)	Min BT(6)	Min ET(7)	Altitude Levels	Bands	Average Rate of Climb
43+	UH	--	--	--	--	--	--	--	43+	UH	--
37-42	EH	3.0	6.5	11.0	5.0	6.5	7.5	8.5	37-42	EH	400
31-36	VH	2.5	7.0	11.0	4.5	6.0	7.0	8.0	31-36	VH	1,000
25-30	HI	2.5	7.5	11.0	4.0	5.5	6.5	7.5	25-30	HI	1,500
19-24	MH	2.5	8.0	11.0	3.5	5.0	6.0	7.0	19-24	MH	2,200
13-18	ML	2.0	8.0	11.0	3.5	4.5	5.5	6.5	13-18	ML	2,700
7-12	LO	2.0	7.5	10.5	3.0	4.0	5.0	6.0	7-12	LO	3,300
1-6	VL	2.0	7.0	10.0	3.0	3.5	4.5	5.5	1-6	VL	3,900

FIRE POWER CHART

Guns	Type Weapons	Ammo	Criticals
N1	1x 12.7mm UBS mg	5	3
N2	2x 7.62mm ShKAS mg	6	4
W1	1x 12.7mm UBS mg pod	5	3
W2	1x 12.7mm UBS mg pod	5	3

GUN ATTACK FACTORS

Rng	N1	N2	W1	W2	Total
0	10	19	11	11	29/51
1	8	15	8	8	23/39
2	5	8	6	6	13/25
3	3	6	4	4	9/17
4	2	4	3	3	6/12
5	2	3	2	2	5/9
6	1	--	1	1	1/3
7	--	--	--	--	--

WEAPON STATION LOCATION

1

2

POWER VERSUS SPEED CHART

Levels	Bands	1.0 - 4.5	5.0 - 7.5	8.0 - 9.5	10.0+	Band
43+	UH	--	--	--	--	UH
37-42	EH	3	1	--	--	EH
31-36	VH	4	1	--	--	VH
25-30	HI	6	3	--	--	HI
19-24	MH	7	4	1	--	MH
13-18	ML	7	4	1	--	ML
7-12	LO	8	5	--	--	LO
1-6	VL	8	5	--	--	VL
Banking FPs		3	4	6	8	
Side Slip FPs		4	5	7	9	

NOTES AND VARIANTS

Mikoyan-Gurevich MiG-3: Improved MiG-1 designed to counter a threat that never appeared - German high altitude strategic bombers. Its AM-35A engine produced an amazing amount of energy at altitude, but it was longitudinally unstable (+1 to gunnery rolls). Protection from the rear only. 3300 built.

Ground support use: As better fighters became available, MiG-3s were (ab)used for ground support armed with either six RS-82 missiles or two UBS mg gun pods (use total to right of slash).

MiG-1: Available March, 1941. First Mikoyan-Gurevich aircraft; smallest fighter that could fit around the 1200 hp AM-35 engine (-1 accel; -200 roc). Less stable than the MiG-3 (+2 to gunnery rolls). End = 80. roc = 80% of MiG-3. No wing stations. Protection from the rear only. Open cockpit. 100 built.

UBS gun pod: Wgt: 200 Load: 1.5 Avail: 1943