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QUARTERLY ESTIMATE OF PRODUCTION OF AIRCRAFT IN THE SINO-SOVIET BLOC OCTOBER-DECEMBER 1958

Office of Research and Reports

CENTRAL INTELLIGENCE AGENCY

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FOREWORD

This publication is the fifteenth in a series issued on a quarterly basis summarizing production of aircraft in the Sino-Soviet Bloc. The estimates presented are issued to satisfy the request of consumers for the most recent estimates of production of aircraft in the Bloc and are intended to supersede those estimates contained in previous ORR publications. Differences between the present estimates and past estimates result from more recent intelligence information.

No interagency coordination has been attempted.

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QUARTERLY ESTIMATE OF PRODUCTION OF AIRCRAFT IN THE SINO-SOVIET BLOC OCTOBER-DECEMBER 1958*

1. Highlights in 1958.

Activity during 1958 in the aircraft industry of the Sino-Soviet Bloc has been highlighted by the probable phase-out of production of known heavy jet bombers and known medium jet bombers in the USSR.** On the basis of information currently available, it still is estimated that production of the Bison (Mya-4) heavy bomber is being phased out at Moscow/Fili Airframe Plant No. 23.*** The current trend of evidence regarding production of the Badger (Tu-16) medium jet bomber at Kazan' Airframe Plant No. 22 and at Kuybyshev Airframe Plant No. 1 suggests that both of these plants are terminating their program for production of Badger aircraft.**** Although at least one new type of large, heavy bomber, the Bounder, is known to have been developed in the USSR, there is no firm evidence to suggest just what type of aircraft may replace the Bison or Badger in series production at Moscow/Fili Airframe Plant No. 23, Kazan' Airframe Plant No. 22, and Kuybyshev Airframe Plant No. 1.

The most significant event of the year probably concerns the appearance in August of a new type of large, heavy bomber, the Bounder, at Moscow/Fili Airframe Plant No. 23. 1/† There is no evidence as yet that the aircraft is in series production. Another probably new type of large aircraft, as yet unidentified, has been noted during 1958 Speculations as to the identity of this aircraft range from a greatly improved Bison to the Bounder or to an entirely different and new type of aircraft.

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* The estimates and conclusions in this publication represent the best judgment of this Office as of 1 January 1959.

** Estimated production of aircraft in the Sino-Soviet Bloc from 1955 through 1958 is given by number in Table 1, p. 10, below, and by airframe weight in Table 2, p. 11, below. Estimated production of aircraft in the USSR from 1955 through 1958 is given by number in Table 3, p. 12, below, and by airframe weight in Table 4, p. 13, below. For comparative purposes, US military acceptance figures from 1955 through 1958 are given by number in Table 6, p. 15, below, and by airframe weight in Table 7, p. 16, below. For additional comparison, production of combat aircraft in the USSR from 1955 through 1958 is compared with that in the US by number in Figure 1, inside back cover, and by airframe weight in Figure 2, inside back cover.

*** For descriptions and illustrations of all Soviet aircraft mentioned in this report, see the Characteristics and Performance Handbook, USSR Aircraft issued in January 1958 by the Assistant Chief of Staff/Intelligence and the Office of Naval Intelligence, US Navy, SECRET. Supplementary sheets have been added to this handbook.

**** Estimated cumulative production of selected Soviet aircraft, including the Badger, through 1958 is given in Table 5, p. 14, below. Estimates of monthly, quarterly, and cumulative production at selected plants in the Sino-Soviet Bloc are given in Table 10, p. 20, below.

† For serially numbered source references, see the Appendix.

The most important development during 1958 in the field of production of transport aircraft has involved the speed with which the Coot (Il-18) four-engine turboprop transport has been produced in the USSR and has entered scheduled airline service. Series production of this aircraft is estimated to have started at Moscow Airframe Plant No. 30 during the third quarter of 1957, and several Coot aircraft have appeared on scheduled airline routes during the fourth quarter of 1958.

Production of the Cat (An-10, An-10A) four-engine turboprop civil transport and its military version, the An-12, now is believed well under way in the USSR after several delays. Recent information suggests that the An-10 or An-10A may have begun scheduled airline service in December 1958, and it is probable that the An-12 has been in use by the military services since late autumn of 1958.

Although it was not expected that the USSR would produce many of the Camel (Tu-104, Tu-104A) twin-engine jet transports, production has continued at least in 1 Soviet airframe plant during 1958 and probably in 2 plants. It now seems probable that production of a later model, the Tu-104B, will continue.

Very little new information concerning production of fighter aircraft in the Sino-Soviet Bloc became available during 1958. Perhaps the most noteworthy event in the field of production of fighter aircraft occurred in July 1958 in the USSR when three Fishbed aircraft were photographed on the plant airfield at Tbilisi Airframe Plant No. 31. 2/ Acquisition of this photograph confirmed previous estimates of the type of new Mikoyan-designed fighter aircraft with which the Tbilisi plant was concerned. It also is of interest that series production of the Farmer (MIG-19) jet fighter in Czechoslovakia during 1958 has failed to materialize.

Significant events in the field of production of miscellaneous aircraft in the Sino-Soviet Bloc include the identification of Rostov Airframe Plant No. 168 in the USSR as a facility producing Hare (Mi-1 or Mi-3) helicopters. A new turbine-powered helicopter, the Hook (Mi-6), was displayed in the USSR during 1958, but there is as yet no evidence of series production.

Except for the USSR, Communist China, of all the countries of the Sino-Soviet Bloc, made the greatest progress in production of aircraft during 1958. With virtually no aircraft industry before 1957, China already is producing a substantial portion of Bloc aircraft outside the USSR.

2. Production in the USSR, Fourth Quarter, 1958.

a. Bombers.

Only 17 observations of Moscow/Fili Airframe Plant No. 23 during the fourth quarter of 1958 have been reported. On the basis of these observations, it is estimated that 2 (possibly only 1) Bison aircraft were produced in October, none in November, and 1 (possibly 2) in December. Therefore, cumulative production of the Bison at

Moscow/Fili Airframe Plant No. 23 as of 1 January 1959 is estimated to be 95* aircraft. This estimate is believed to be reliable within plus or minus 6 aircraft. The plant still is believed to be phasing out production of the Bison. Production rates through 1958 continue to be low and erratic.

Bounder, a new large jet bomber, was observed and photographed several times at Moscow/Fili Airframe Plant No. 23 during the period from 27 August through 15 September 1958. Between 15 September and 26 September 1958, the Bounder aircraft disappeared from view. On 12 November 1958, however, the fuselage of a Bounder aircraft was sighted on 3 barges being towed along the Moscow River. 3/ The next day a fuselage estimated to be 200 feet in length was on barges at Ramenskoye, the site of a flight testing institute of the Soviet Air Force.

The estimate of production of the Bear (Tu-95) heavy turboprop bomber at Kuybyshev Airframe Plant No. 18 remains as stated in the last publication of this series. During the fourth quarter of 1958 there became available no information which would change this estimate in any way.

Production of the Badger medium jet bomber at Kazan' Airframe Plant No. 22 now is estimated to have ceased by the end of 1958, and production at Kuybyshev Airframe Plant No. 1 probably will cease some time during the first half of 1959.** Reanalysis shows that the Kazan' plant probably reached its peak rate of production much earlier than previously estimated. It now is believed that a minimum of 238 Badger aircraft were produced at this facility in 1955, indicating that the peak rate of 20 aircraft per month was attained early in 1955. 4/ As a result, approximately 80 more Badger aircraft now are estimated to have been produced at Kazan' Airframe Plant No. 22 than had been estimated previously.

During the fourth quarter of 1958 there became available no collateral information which would substantiate a phase-out of Badger aircraft at Kazan' Airframe Plant No. 22. The estimated phase-out still is based largely on the reduced number of possible delivery flights and test flights of Tu-16 aircraft from Kazan'. Only one possible Tu-16 aircraft has been noted on a delivery flight from Kazan' since September

* Analysis of information received after publication of the last estimate in this series of publications indicates that 3 Bison heavy jet bombers were produced at Moscow/Fili Airframe Plant No. 23 during the second quarter of 1958 instead of the 4 previously estimated. Two Bison aircraft are believed to have been produced in July, one in August, and none in September.

** This estimate represents a slight change from the estimates presented during the third quarter of 1958. It should be noted, however, that it is very difficult on the basis of available information to determine the exact date when production ceases. It is possible, therefore, that these estimates may be revised again in the future.

1958. Five test flights of probable Tu-16 aircraft have been noted from this location since August 1958.

Production of the Badger at Kuybyshev Airframe Plant No. 1 still was estimated to be phasing out in the fourth quarter of 1958. An arbitrary change has been made in the estimated date by which production probably will cease. This change has been made in order to reflect a more conservative estimate until additional information is received, and the change allows continued production into the spring of 1959. It still is possible, however, that production ceased by the end of 1958.

As in the case of Kazan' Airframe Plant No. 22, no information supporting a probable phase-out of Badger aircraft at Kuybyshev Airframe Plant No. 1 has become available during the past 3 months.

Although the number of possible delivery flights noted from Kuybyshev has not been reduced so noticeably as the number noted from Kazan' in recent months, a reduction still is very apparent.

Probably the most significant fact pertaining to a possible phase-out of production of the Badger at Kuybyshev Airframe Plant No. 1 concerns the virtual cessation of test flight activity noted from this location. No aircraft have been reported on possible test flights from Kuybyshev since August 1958. Only 1 such flight was noted in July 1958 and 1 in June 1958.

b. Transports.

The most important change made in the current estimate of production of transport aircraft in the USSR from the estimate presented for the third quarter of 1958 involves estimated production of the Coot at Moscow Airframe Plant No. 30.

It has been necessary to revise the estimated schedule of production to reflect a faster buildup. It now is estimated that approximately 44 Coot aircraft had been produced at Moscow Airframe Plant No. 30 by the end of the third quarter of 1958 rather than the 35 previously estimated. Cumulative production of the Coot as of the end of 1958 is believed to be about 60 aircraft. The speed with which this aircraft has gone into series production and into scheduled service with the Civil Air Fleet (GVF) is very interesting in at least two respects. First, from what is known of the final assembly area at Moscow Airframe Plant No. 30, it is apparent that difficulties should be encountered in the establishment of an efficient assembly line for so large an aircraft. Therefore, it is probable, that the rapid buildup noted so far will not continue, and it also is possible that another Soviet airframe plant may enter, or already may have entered, the program for production of the Coot. Second, it is interesting to note that the initiation of series production of the Coot apparently proceeded much more rapidly than did series production of rival turboprop transports designed by Antonov.

The Khar'kov plant now is known to have produced approximately 9 Camel aircraft in 1957, rather than 12, and to have reached a production rate of 2 Camel aircraft per month in January 1958. Information still is not available on the current activities of the other known production site of the Camel, Omsk Airframe Plant No. 166. It is believed, however, that the Omsk plant probably still is engaged in limited production of the Camel.

Production of the Cat turboprop transport appears to be well under way at Voronezh Airframe Plant No. 64.

5/ Twelve Cat aircraft were sighted on the airfield of the Voronezh plant on 4 December 1958. 6/ Production of the An-12, a military version of the Cat, at Irkutsk Airframe Plant No. 39 is believed to be proceeding on schedule.

The status of production of the Cleat (Tu-114, Tu-114D) is not yet clear. Until further information becomes available, it is estimated that a few Tu-114D models are being constructed at Kuybyshev Airframe Plant No. 18. It is possible that these actually represent modified Bear aircraft rather than new Tu-114D aircraft.

The previous estimate of production of the Colt (An-2) piston transport was revised

It is believed now that approximately 1,600 Colt aircraft were produced at Kiev Airframe Plant No. 473 by May 1958 7/ and that production stopped by the end of the third quarter of 1958. The Colt is believed to have been replaced in series production at this plant by the new Antonov-designed Clod (An-14) piston transport.

c. Fighters.

During the fourth quarter of 1958 an extremely limited amount of intelligence information concerning Soviet production of jet fighter aircraft was received. As a result, the current status of production at plants involved with jet fighters designed by Mikoyan is ill defined.

Commensurate with the presumed continuing low rates of production of new Mikoyan fighters, a longer period for the phase-out of older types of fighters has been estimated. This estimate in turn has necessitated a reduction in the number of fighter aircraft estimated to have been produced during 1957.

Such a replacement, or improved version of Article E-5, would not be unusual because the airframe plant has been involved with limited production of the Fishbed for the past 2 years. Although it has been assumed that Article E-6 is a modification or a variant of Article E-5, the new designation has not been equated firmly with any known fighter.

The only sighting of Tbilisi Airframe Plant No. 31 during the fourth quarter of 1958 produced little information on productive activity in the plant. The observation revealed the presence of 7 unidentified fighter aircraft, possibly Farmer (MIG-19) jet fighters, and 2 unidentified aircraft tails protruding from a small hangar. 10/ Although the observer could supply no further details on the size or shape of the tails, he did not believe them to be tails of either Fresco (MIG-17) or Farmer aircraft.

A suggestion , is that Tbilisi Airframe Plant No. 31 has filed a full set of drawings for Article E-5 with Gor'kiy Airframe Plant No. 21 for record purposes and currently is tooling for production of Article E-6. A more likely possibility is that Tbilisi Airframe Plant No. 31 will act in the capacity of pilot plant in production of Article E-6. Because the evidence is inconclusive, both suggestions are considered to be extremely tenuous.

A continuing study indicates that the estimate of production for the Sukhoy-designed jet fighter, the Fitter, at Komsomol'sk Airframe Plant No. 126 should be revised upward. The current estimate of production at this plant, therefore, reflects this change from the previously published estimate. It is now believed that, following a rather lengthy period of developmental testing, the rate of production of the modified Fitter was increased sharply during the second quarter of 1958. By December 1958, production probably reached a rate of 16 aircraft per month.

The estimate of production for Novosibirsk Airframe Plant No. 153 is very tentative. Analysis indicates that the plant is associated with production of a Sukhoy-designed fighter aircraft, probably the Fishpot. The first series-produced model of the aircraft is estimated to have been completed

during the fourth quarter of 1958. Production of the Farmer at Novosibirsk Airframe Plant No. 153 probably will have ceased by the end of 1958. The Farmer is believed to have been produced at a high rate during the latter part of 1957, and the program for the phase-out of this aircraft should take approximately 1 year.

d. Others.

The estimate of production of the Creek (Yak-12) piston aircraft at Leningrad Airframe Plant No. 458 has been revised this quarter on the basis [redacted]. It had been expected that production would decrease temporarily as a new model of the Creek was introduced into production. Analysis [redacted], however, indicates that the Creek probably was being produced at the rate of one aircraft per working day during the first quarter of 1958. As more recent information is not available, it is assumed that production continued at a constant rate throughout the year.

During the fourth quarter of 1958, Rostov Airframe Plant No. 168 was identified as a producer of the Mi-3 helicopter, a slightly larger four-bladed version of the Hare (Mi-1) helicopter. 11/ Analysis [redacted] indicates that a minimum of four of these helicopters had been produced at Plant No. 168 by the end of 1957. On two occasions the light helicopters have been observed within the area of the Rostov plant. Five helicopters identified as Hare were seen in May 1958, 12/ and eight were noted on the plant airfield in December 1958. 13/

Continued sightings of the Horse (Yak-24) helicopter in East Germany indicate that this helicopter was produced in slightly larger quantities than was previously estimated. The status of production of the large Yakovlev-designed helicopter remains obscure.

3. Production in the European Satellites, Fourth Quarter, 1958.*

Observations of the Prague/Vodochody Airframe Plant in Czechoslovakia during the fourth quarter of 1958 indicated that production of the Farmer jet fighter almost certainly stopped after a very short experimental series. Production of the Midget (U-MIG-15) at this plant continues.

[redacted], a reappraisal of production of the Moose (Yak-11) piston-engine trainer in Czechoslovakia is now under way. It tentatively is concluded that production of this aircraft was instituted in 1953 and had ceased by mid-1957. The possibility that cumulative production of this aircraft as presented in the current estimate should be reduced by as much as 50 percent also should be noted. For the present, however, no change has been made.

* Estimated production of aircraft in the European Satellites and in Communist China from 1955 through 1958 is given by number in Table 8, p. 17, below, and by airframe weight in Table 9, p. 18, below.

The estimate of production of the Crate (Il-14) piston transport at the Letnany-Cakovice complex in Czechoslovakia has been increased this quarter
Introduction of a new model of the Crate, Il-14T, into production at this plant apparently has had little effect on the rate of production of 5 aircraft per month.

the buildup of production for the Crate in East Germany during 1956 and 1957 was somewhat slower than previously estimated. Production during 1958 has been rather irregular but has averaged 3 aircraft per month.

In Poland, production of the Fresco continues, although possibly at a somewhat lower rate than currently estimated. Occasional reports that the Fresco was to be replaced in series production at Mielec by the Farmer have not been verified. Estimated production of the Sm-1 helicopter, Polish version of the Soviet Hare, at Lublin/Swidnik has been revised this quarter
Recently, a second type of helicopter, the Hound (Mi-4) appeared in Polish military and civil service. Although these aircraft probably were imported from the USSR, future Polish production of the Hound is quite possible.

Sightings and press releases indicate that the sporadic production of aircraft at Lovech, Bulgaria, has stopped entirely and is being replaced by production of motorcycles and bicycles. Production of light aircraft in Rumania and Hungary is continuing, but at a low and sporadic rate.

4. Production in Communist China, Fourth Quarter, 1958.

One of the most impressive achievements in the field of production of aircraft during 1958 within the Sino-Soviet Bloc is the progress made by Communist China. Although the Chinese Communists were producing no aircraft domestically as recently as 18 months ago, they now are engaged in series production of the Fresco (MIG-17) jet fighter and the Colt (An-2) piston transport. There are indications that the Chinese will undertake series production of the Hound (Mi-4) helicopter in early 1959.

Although no recent information is available on Shenyang Airframe Plant No. 112, it is believed that the plant is continuing production of Fresco aircraft which started in late 1957. Increasing numbers of the jet fighters designed by Mikoyan have been observed in operational units in 1958. Although the Chinese designate the jet fighter, "Type 56," it is believed that the aircraft is identical to the Fresco, produced by the USSR.

Production of the Colt piston transport at Nanchang Plant No. 320 is continuing at a relatively steady rate. The Chinese Communists have indicated that the biplanes will be produced at a rate 50 percent higher than originally planned. 14/ Twelve of the transports were delivered from Nanchang in September 1958. 15/ Of these aircraft, 6 were delivered to the Chinese Air Force, 2 to the Civil Air

Administration, and 4 to various provincial governments. It is estimated that approximately 7 An-2's were completed in October and 7 in November. Plant No. 320 encountered some difficulties in production in late October as the plant experienced a shortage of calcium carbide. 16/ Such a shortage, however, should not seriously have impaired production for any great length of time.

Airframe Plant No. 122 was concerned with production or Harbin maintenance of Hound helicopters. 17/

Subsequent intelligence, however, indicates that Plant No. 122 has produced the first Hound prototype and may enter series production of the Mil-designed helicopter. In a recent press release the Chinese Communists stated that a plant in Harbin had produced Communist China's first multipurpose helicopter and that trial flights on 16 December 1958 proved the helicopter to be satisfactory. 18/ With the prototype completed and tested in December 1958, it is believed that China will enter series production of the helicopter in early 1959.

Table 1

Estimated Production of Aircraft in the Sino-Soviet Bloc, by Number a/
1955-58

Units

Type of Aircraft	1955		1956		1957		1958	3d Quarter of 1958		4th Quarter of 1958
Jet bomber										
Heavy	21		25		33		14	3	(4) b/	3
Medium	390	(360)	500	(490)	460		230	47	(49)	27
Light	790		330		130		0	0		0
Turboprop bomber										
Heavy	17		35		0		0	0		0
Jet fighter	3,100		2,500		2,000	(2,100)	1,200	290	(270)	270
Transport										
Jet	5		17		30	(33)	37	9	(6)	9
Turboprop	0		3		18	(13)	120	35	(33)	47
Piston	610	(640)	1,100	(1,000)	1,200		690	140	(100)	140
Trainer										
Jet	1,200		620		430		340	75		75
Piston	580		630		660		570	140	(150)	130
Other c/	350	(340)	470	(460)	610	(550)	850	220	(150)	220
Total	7,100	(7,000)	6,200	(6,100)	5,600		4,100	960	(830)	920

a. Figures are rounded to two significant digits. Totals are derived from unrounded figures and do not always agree with the sum of the rounded components.
b. Numbers in parentheses represent estimates presented in the last publication of this series. Reasons for changes in the present estimates from past estimates are explained in the text of this publication.
c. Helicopters, gliders, seaplanes, and utility aircraft.

Table 2

Estimated Production of Aircraft in the Sino-Soviet Bloc, by Weight a/
1955-58

Thousand Pounds of Airframe Weight

Type of Aircraft	1955		1956		1957		1958	3d Quarter of 1958		4th Quarter of 1958
Jet bomber										
Heavy	2,300		2,800		3,700		1,600	340	(450) b/	340
Medium	20,000	(18,000)	25,000		23,000		12,000	2,400	(2,500)	1,400
Light	14,000		6,000		2,300		0	0		0
Turboprop bomber										
Heavy	1,500		3,100		0		0	0		0
Jet fighter	24,000		22,000		18,000		11,000	2,600	(2,300)	2,400
Transport										
Jet	280	(300)	940		1,700	(1,800)	2,100	500	(330)	500
Turboprop	0		94		970	(740)	5,900	1,700	(1,600)	2,200
Piston	2,600	(2,800)	10,000	(9,800)	12,000	(11,000)	3,900	680	(430)	720
Trainer										
Jet	8,600	(8,500)	3,900		2,600		2,100	460		460
Piston	660		720		740		650	160	(170)	140
Other c/	2,700		3,200	(3,100)	3,000	(2,900)	3,100	790	(610)	730
Total	77,000	(75,000)	78,000	(77,000)	68,000		42,000	9,600	(8,800)	8,900

a. Figures include production of spare parts and are rounded to two significant digits. Totals are derived from unrounded figures and do not always agree with the sum of the rounded components.
b. Numbers in parentheses represent estimates presented in the last publication of this series. Changes in the present weight estimates from past weight estimates reflect changes in the estimated number of aircraft produced.
c. Helicopters, gliders, seaplanes, and utility aircraft.

Table 3

Estimated Production of Aircraft in the USSR, by Number a/
1955-58

Units

Type of Aircraft	1955		1956		1957		1958	3d Quarter of 1958		4th Quarter of 1958
Jet bomber										
Heavy	21		25		33		14	3	(4) b/	3
Medium	390	(360)	500	(490)	460		230	47	(49)	27
Light	790		330		130		0	0		0
Turboprop bomber										
Heavy	17		35		0		0	0		0
Jet fighter	2,600		2,000		1,600	(1,700)	740	160	(140)	140
Transport										
Jet	5		17		30	(33)	36	9	(6)	9
Turboprop	0		3		18	(13)	120	35	(33)	47
Piston	610	(640)	1,000		1,200	(1,100)	540	99	(61)	93
Trainer										
Jet	840		310		180		140	30		30
Piston	340		360		360		360	90		90
Other c/	330	(320)	380	(360)	420	(390)	550	140	(99)	140
Total	5,900		5,000		4,400		2,700	620	(510)	580

a. Figures are rounded to two significant digits. Totals are derived from unrounded figures and do not always agree with the sum of the rounded components.
b. Numbers in parentheses represent estimates presented in the last publication of this series. Reasons for changes in the present estimates from past estimates are explained in the text of this publication.
c. Helicopters, gliders, and seaplanes.

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Table 4

Estimated Production of Aircraft in the USSR, by Weight a/
1955-58

Thousand Pounds of Airframe Weight

Type of Aircraft	1955		1956		1957		1958	3d Quarter of 1958		4th Quarter of 1958
Jet bomber										
Heavy	2,300		2,800		3,700		1,600	340	(450) b/	340
Medium	20,000	(18,000)	25,000		23,000		12,000	2,400	(2,500)	1,400
Light	14,000		6,000		2,300		0	0		0
Turboprop bomber										
Heavy	1,500		3,100		0		0	0		0
Jet fighter	21,000		19,000		15,000	(16,000)	7,200	1,600	(1,400)	1,400
Transport										
Jet	280	(300)	940		1,700	(1,800)	2,000	500	(330)	500
Turboprop	0		94		970	(740)	5,900	1,700	(1,600)	2,200
Piston	2,600	(2,800)	9,600	(9,500)	11,000	(10,000)	2,000	190	(84)	190
Trainer										
Jet	6,700		2,000		1,100		830	180		180
Piston	400		430		430		430	110		110
Other c/	2,700		3,100	(3,000)	2,700		2,600	660	(550)	610
Total	72,000	(70,000)	72,000		62,000		34,000	7,700	(7,100)	7,000

a. Figures include production of spare parts and are rounded to two significant digits. Totals are derived from unrounded figures and do not always agree with the sum of the rounded components.
b. Numbers in parentheses represent estimates presented in the last publication of this series. Changes in the present weight estimates from past weight estimates reflect changes in the estimated number of aircraft produced.
c. Helicopters, gliders, and seaplanes.

Table 4

Estimated Production of Aircraft in the USSR, by Weight a/
1955-58

Thousand Pounds of Airframe Weight

Type of Aircraft	1955		1956		1957		1958	3d Quarter of 1958		4th Quarter of 1958
Jet bomber										
Heavy	2,300		2,800		3,700		1,600	340	(450) b/	340
Medium	20,000	(18,000)	25,000		23,000		12,000	2,400	(2,500)	1,400
Light	14,000		6,000		2,300		0	0		0
Turboprop bomber										
Heavy	1,500		3,100		0		0	0		0
Jet fighter	21,000		19,000		15,000	(16,000)	7,200	1,600	(1,400)	1,400
Transport										
Jet	280	(300)	940		1,700	(1,800)	2,000	500	(330)	500
Turboprop	0		94		970	(740)	5,900	1,700	(1,600)	2,200
Piston	2,600	(2,800)	9,600	(9,500)	11,000	(10,000)	2,000	190	(84)	190
Trainer										
Jet	6,700		2,000		1,100		830	180		180
Piston	400		430		430		430	110		110
Other c/	2,700		3,100	(3,000)	2,700		2,600	660	(550)	610
Total	72,000	(70,000)	72,000		62,000		34,000	7,700	(7,100)	7,000

a. Figures include production of spare parts and are rounded to two significant digits. Totals are derived from unrounded figures and do not always agree with the sum of the rounded components.
b. Numbers in parentheses represent estimates presented in the last publication of this series. Changes in the present weight estimates from past weight estimates reflect changes in the estimated number of aircraft produced.
c. Helicopters, gliders, and seaplanes.

Table 5

Estimated Cumulative Production of Selected Aircraft in the USSR a/
Through 1958

Units

Model	Type of Aircraft	Production to 1 January 1959
Badger	Jet medium bomber	1,800
Beagle b/	Jet light bomber	6,000
Bear b/	Turboprop heavy bomber	55
Bison	Jet heavy bomber	95
Camel	Jet transport	88
Coot	Turboprop transport	60
Crate b/	Piston transport	1,100
Clod	Piston transport	27
Farmer	Jet fighter	3,400
Flashlight b/	Jet all-weather interceptor	670
Fresco b/	Jet fighter	8,400
Fishbed	Jet fighter	58
Fitter	Jet fighter	110
Horse b/	Helicopter	45
Hound	Helicopter	740
New fighters	Jet fighter	110
New transports	Turboprop transport	81

a. Totals given in this table are rounded to two significant digits.
b. Denotes aircraft no longer in production.

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Table 6

US Military Aircraft Acceptances, by Number a/
1955-58

Units

Type of Aircraft	1955	1956	1957	1958	3d Quarter of 1958	4th Quarter of 1958 b/
Bomber						
Heavy	34	75	173	156	38	37
Medium	530	505	199	31	1	4
Light	155	105	14	0	0	0
Ground attack	631	469	339	401	101	91
Fighter	4,017	2,656	2,569	1,578	335	307
Transport	536	362	223	336	97	73
Trainer	1,439	843	784	567	142	145
Other c/	701	1,098	1,316	1,168	322	308
Total	8,043	6,113	5,617	4,237	1,036	965

a. 19/
b. Including preliminary data for December 1958.
c. Tankers; helicopters; flying boats; and antisubmarine warfare, warning, liaison, utility, amphibian, and lighter-than-air aircraft.

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Table 7

US Military Aircraft Acceptances, by Weight a/
1955-58

Thousand Pounds of Airframe Weight

Type of Aircraft	1955	1956	1957	1958	3d Quarter of 1958	4th Quarter of 1958 b/
Bomber						
Heavy	3,853	8,442	19,462	17,638	4,301	4,159
Medium	26,377	22,525	7,340	1,250	32	128
Light	2,724	1,975	268	0	0	0
Ground attack	6,034	4,803	3,720	3,705	978	705
Fighter	43,161	30,588	30,427	18,628	4,050	3,597
Transport	20,697	13,104	9,319	8,214	1,693	1,348
Trainer	7,453	3,283	4,050	3,107	717	763
Other c/	4,397	5,292	4,853	13,770	4,221	4,308
Total	114,696	90,012	79,439	66,312	15,992	15,008

a. 20/
b. Including preliminary data for December 1958.
c. Tankers; helicopters; flying boats; and antisubmarine warfare, warning, liaison, utility, amphibian, and lighter-than-air aircraft.

Table 8

Estimated Production of Aircraft in the European Satellites and in Communist China, by Number a/
1955-58

Units

Country	Type of Aircraft	1955	1956		1957		1958	3d Quarter of 1958		4th Quarter 1958
Czechoslovakia	Jet fighter	240	220		220		10	3		
	Jet trainer	310	310		250		210	45		45
	Piston trainer	140	140		140		54	5	(17) b/	0
	Piston transport	0	17	(13)	46	(38)	60	15	(6)	15
	Helicopter	0	0		0		7	3		3
	Other	22	96		150		180	47	(44)	48
Total		720	790		810	(800)	530	120		110
Poland	Jet fighter	330	260		190		360	90		90
	Piston trainer	36	36		36		34	8		6
	Light helicopter	0	0	(2)	40	(8)	110	30	(5)	30
Total		370	290	(300)	270	(240)	500	130	(100)	130
Rumania	Piston trainer	24	24		45		69	20		18
Bulgaria	Piston trainer	20	36		36		20	6		2
Hungary	Piston trainer	24	30		36		37	9		10
East Germany	Piston transport	0	2	(4)	19	(20)	39	10	(9)	11
	Jet transport	0	0		0		1	0		0
Total		0	2		19	(20)	40	10	(9)	11
Communist China	Jet fighter	0	0		1		120	36		41
	Piston transport	0	0		1		56	17	(24)	21
Total		0	0		2		180	53	(60)	62
Grand total		1,200	1,200		1,200		1,400	340	(320)	340

a. Figures are rounded to two significant digits. Totals are derived from unrounded figures and do not always agree with the sum of the rounded components.

b. Numbers in parentheses represent estimates presented in the last publication of this series. Reasons for changes in the present estimates from past estimates are explained in the [illegible]

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Table 9

Estimated Production of Aircraft in the European Satellites and in Communist China, by Weight a/*
1955-58

Thousand Pounds of Airframe Weight

Country	Type of Aircraft	1955	1956		1957		1958	3d Quarter of 1958		4th Quarter of 1958
Czechoslovakia	Jet fighter	1,400	1,300		1,200	(1,300) b/	96	29		0
	Jet trainer	1,900	1,900		1,500		1,300	280		280
	Piston trainer	160	160		160		58	5	(14)	0
	Piston transport	0	290	(220) c/	790	(660)	1,000	260	(100)	260
	Helicopter	0	0		0		7	3	(7)	3
	Other	24	100		160		200	51	(48)	52
Total		3,500	3,700		3,900	(3,700)	2,700	620	(480)	590
Poland	Jet fighter	2,000	1,500		1,400		2,700	670		670
	Piston trainer	35	35		35		33	8		6
	Light helicopter	0	0		92	(18)	260	69	(12)	69
Total		2,000	1,600	(1,500) b/	1,600	(1,500)	3,000	750	(690)	750
Rumania	Piston trainer	23	23		43		66	19		17
Bulgaria	Piston trainer	19	34		34		19	6		2
Hungary	Piston trainer	29	36		36		44	11		12
East Germany	Piston transport	0	34	(69)	330	(350)	670	170	(160)	190
	Jet transport	0	0		0		68	0		0
Total		0	34	(69)	330	(350)	740	170	(160)	190

* Footnotes for Table 9 follow on p. 19.

Table 9

Estimated Production of Aircraft in the European Satellites and in Communist China, by Weight a/
1955-58
(Continued)

Thousand Pounds of A. frame Weight

Country	Type of Aircraft	1955	1956	1957	1958	3d Quarter of 1958	4th Quarter of 1958
Communist China	Jet fighter	0	0	7	890	270 (260)	310
	Piston transport	0	0	4	210	64 (90)	79
Total		0	0	11	1,100	330 (350)	380
Grand total		5,500 (5,600)	5,400	5,900 (5,700)	7,600	1,900 (1,700)	1,900

a. Figures include production of spare parts and are rounded to two significant digits. Totals are derived from unrounded figures and do not always agree with the sum of the rounded components.
b. Erroneously published in the last quarterly publication of this series.
c. Numbers in parentheses represent estimates presented in the last publication of this series. Unless otherwise indicated, changes in the present weight estimates from past weight estimates reflect changes in the estimated number of aircraft produced.

Table 10

Estimated Production of Aircraft in the Sino-Soviet Bloc, by Number in Selected Plants as of the Fourth Quarter of 1958

Country	Type of Aircraft	Model	Airframe Plant	December Production	Quarterly Production	Cumulative Production a/	Remarks
USSR	Bombers						
	Heavy jet	Bison (Mya-4)	Moscow No. 23	1	3	95	Phasing out.
		Bounder	Moscow No. 23	0	0	2	Prototypes. Only 1 Bounder is known positively to exist, but it is possible that 2 have been constructed.
	Heavy turboprop	Bear (Tu-95)	Kuybyshev No. 18	0	0	55	Series production is believed to have ceased during the fourth quarter of 1956.
	Medium jet	Badger (Tu-16)	Kuybyshev No. 1	6	21	640	Phasing out.
		Badger (Tu-16)	Kazan' No. 22	1	6	1,000	Phasing out.
		Badger (Tu-16)	Voronezh No. 64	0	0	170	Production ceased in late 1957 or early 1958.
	Jet fighters	Farmer (MIG-19)	Gor'kiy No. 21	0	0	1,400	The last Farmer was produced in April 1958.
		Faceplate/Fishbed	Gor'kiy No. 21	5	13	44	Current activity largely is obscure.
		Fresco (MIG-17)	Tbilisi No. 31	0	0	1,700	Series production is believed to have ceased in August 1958. Modification of the Fresco may be continuing at the plant.

a. Unless otherwise indicated, figures for cumulative production are rounded to two significant digits and include all production through the fourth quarter of 1958.

Table 10

Estimated Production of Aircraft in the Sino-Soviet Bloc, by Number in Selected Plants as of the Fourth Quarter of 1958 (Continued)

Country	Type of Aircraft	Model	Airframe Plant	December Production	Quarterly Production	Cumulative Production	Remarks
USSR (Continued)	Jet fighters (Continued)	Fishbed	Tbilisi No. 31	14	31	58	Series production is believed to have started in November 1957.
		Fitter	Komsomol'sk No. 126	16	47	110	Series production is believed to have started in July 1957.
		Farmer (MIG-19)	Novosibirsk No. 153	5	20	1,900	Phasing out.
		Fishpot	Novosibirsk No. 153	1	2	2	Series production is believed to have started in October 1958.
		Yak-27	Saratov No. 292	11	30	63	Series production is believed to have started in March 1958.
	Transports						
	Jet	Camel (Tu-104 and Tu-104A)	Khar'kov No. 135	2	6	39	
		Camel (Tu-104 and Tu-104A)	Omsk No. 166	1	3	46	
	Turboprop	Military Cat (An-12)	Irkutsk No. 39	5	13	34	
		Civil Cat (An-10)	Voronezh No. 64	4	12	25	
		Coot (Il-18)	Moscow No. 30	6	16	60	
		Cleat (Tu-114 and Tu-114D)	Kuybyshev No. 18	0	2	8	Prototypes. The Tu-114D aircraft possibly are modified Tu-95 aircraft rather than new production.

Table 10

Estimated Production of Aircraft in the Sino-Soviet Bloc, by Number in Selected Plants as of the Fourth Quarter of 1958
(Continued)

Country	Type of Aircraft	Model	Airframe Plant	December Production	Quarterly Production	Cumulative Production	Remarks
USSR (Continued)	Turboprop (Continued)	Antonov transport	Tashkent No. 84	2	4	5	The type of aircraft is not known. It possibly is the An-8, although information is conflicting.
	Piston	Creek (Yak-12)	Leningrad No. 458	24	72	1,000	
		Colt (An-2)	Kiev No. 473	0	0	1,700	Production is believed to have ceased during the third quarter of 1958.
		Clod (An-14)	Kiev No. 473	9	21	27	
	Trainers						
	Jet	Midget (U-MIG-15)	Ulan-Ude No. 99	10	30	1,800	Cumulative production since 1952.
	Piston	Max (Yak-18)	Semenovka No. 116	30	90	2,700	Cumulative production since 1952.
	Helicopters	Hare (Mi-3)	Rostov No. 168	16	46	180	
		Hare (Mi-1)	Chkalov No. 47	15	45	780	
		Hen (Ka-15)	Ulan Ude No. 99	6	18	120	
		Hound (Mi-4)	Kazan' No. 387	10	30	410	
		Horse (Yak-24)	Leningrad No. 272	0	0	45	Only a small quantity was series produced. Production ceased in 1956.
	Seaplanes	Madge (Be-6)	Taganrog No. 49/86	1	3	320	

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Table 10

Estimated Production of Aircraft in the Sino-Soviet Bloc, by Number in Selected Plants as of the Fourth Quarter of 1958
(Continued)

Country	Type of Aircraft	Model	Airframe Plant	December Production	Quarterly Production	Cumulative Production	Remarks
Czechoslovakia	Jet fighters	Farmer (MIG-19) type	Vodochody	0	0	10	The last Farmer is believed to have been produced during the third quarter of 1958.
	Piston transport	Crate (Il-14)	Cakovice	5	15	120	
	Jet trainer	Midget (U-MIG-15)	Vodochody	15	45	1,300	
	Helicopters	HC-2	Otrokovice	1	3	7	
	Others	Aero-145	Kunovice	10	30	380	
		L-200	Kunovice	0	0	5	Preseries production.
		L-60	Chocen "Orlican"	1	4	140	
		L-40	Chocen "Orlican"	1	2	7	
		ZLIN series	Otrokovice	4	12	230	
Poland	Jet fighters	Fresco (MIG-17)	Mielec	30	90	550	
	Piston trainers	PZL-101	Okecie	1	2	10	
		PZL-M-2	Swidnik	1	2	7	
		TS-8	Mielec	0	0	10	Preseries production.
		PZL-102	Swidnik	0	0	1	Prototypes.
		S-4 Kania-2	Mielec	1	2	3	Prototypes.
	Helicopters	SM-1	Lublin/Swidnik	10	30	110	
Rumania	Piston trainers	IAR-811 IAR-813 IAR-817	Stalin	4	12	130	
		RG-6	Reghin	2	6	20	

Table 10

Estimated Production of Aircraft in the Sino-Soviet Bloc, by Number in Selected Plants as of the Fourth Quarter of 1958
(Continued)

Country	Type of Aircraft	Model	Airframe Plant	December Production	Quarterly Production	Cumulative Production	Remarks
Bulgaria	Piston trainers	LAZ series	Lovech	0	2	110	Production ceased during fourth quarter of 1958.
Hungary	Piston trainers	Max (Yak-18)	Esztergom	3	9	120	
	Helicopters		Esztergom	0	1	1	Prototype.
East Germany	Transports						
	Piston	Crate (Il-14)	Dresden/Klotzsche	4	11	60	
	Jet	"Type 152"	Dresden/Klotzsche	0	0	1	Prototype.
Communist China	Jet fighters	Fresco (MIG-17)	Shenyang No. 112	14	41	120	
	Piston transports	Colt (An-2)	Nanchang No. 320	7	21	57	

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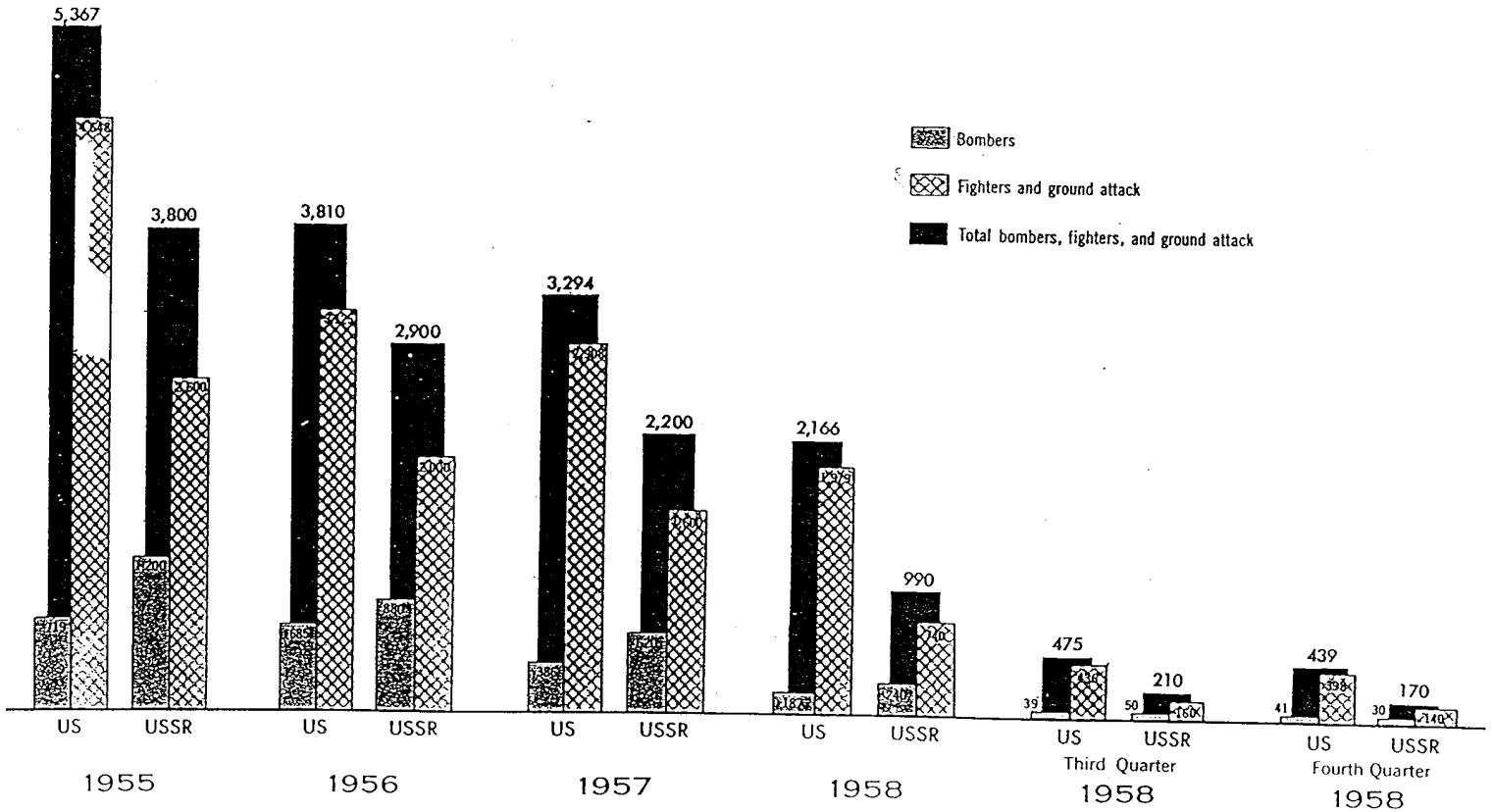
US[a] and USSR[b]

PRODUCTION OF MILITARY AIRCRAFT,[c] BY NUMBER

1955 - 58

Figure 1



a. US totals include preliminary data for December 1958.
b. USSR totals are rounded.
c. Bombers and fighters.

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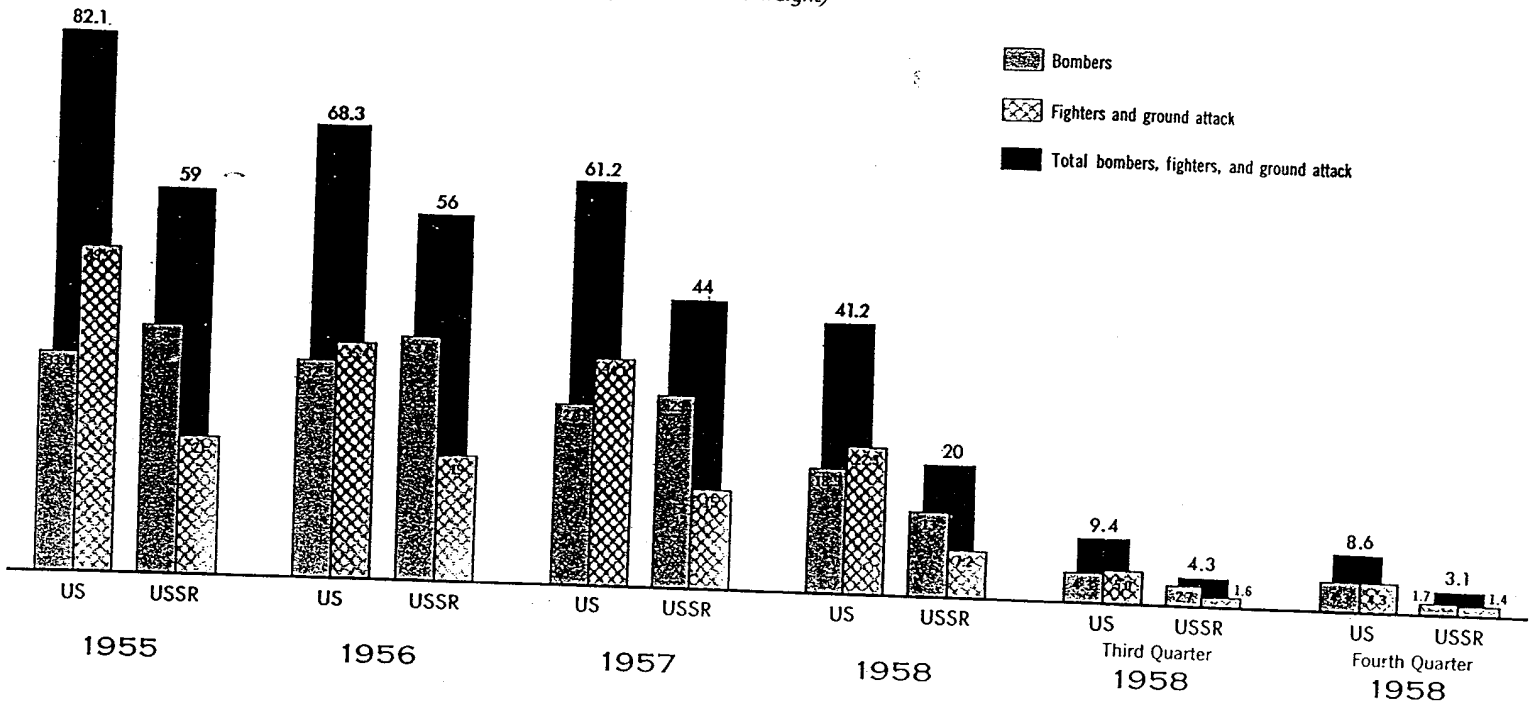
US[a] and USSR[b]

PRODUCTION OF MILITARY AIRCRAFT[c], BY WEIGHT[d]

1955 - 58

Figure 2

(Million pounds of airframe weight)



a. *US totals include preliminary data for December 1958.*
b. *USSR totals are rounded.*
c. *Bombers and fighters.*
d. *US figures do not include production of spare parts.*

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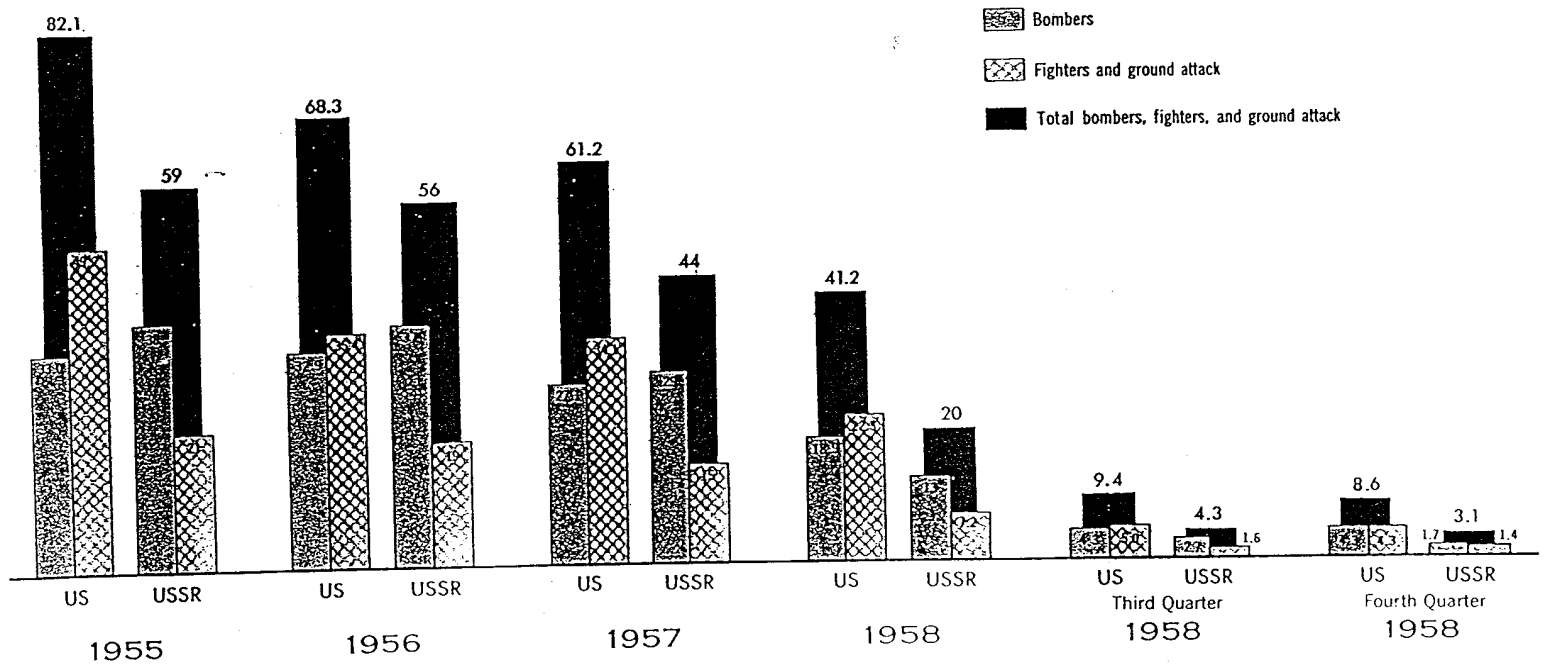
Figure 2

US[a] and USSR[b]

PRODUCTION OF MILITARY AIRCRAFT[c], BY WEIGHT[d]

1955 - 58

(Million pounds of airframe weight)



a. *US totals include preliminary data for December 1958.*
b. *USSR totals are rounded.*
c. *Bombers and fighters.*
d. *US figures do not include production of spare parts.*

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APPENDIX

SOURCE REFERENCES

Evaluations, following the classification entry and designated "Eval.," have the following significance:

Source of Information	Information
Doc. - Documentary	1 - Confirmed by other sources
A - Completely reliable	2 - Probably true
B - Usually reliable	3 - Possibly true
C - Fairly reliable	4 - Doubtful
D - Not usually reliable	5 - Probably false
E - Not reliable	6 - Cannot be judged
F - Cannot be judged	

"Documentary" refers to original documents of foreign governments and organizations; copies or translations of such documents by a staff officer; or information extracted from such documents by a staff officer, all of which may carry the field evaluation "Documentary."

Evaluations not otherwise designated are those appearing on the cited document; those designated "RR" are by the author of this report. No "RR" evaluation is given when the author agrees with the evaluation on the cited document.

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