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U. S. STRATEGIC BOMBING SURVEY

APO 234, c/o Postmaster
San Francisco, California

MISCELLANEOUS NOTES ON TARGET NO. 1547

Kawasaki Aircraft Factory.
at
Akashi

By Mr. C.K. Parker. Oct. 30th. 1945

(1.) The following notes on Target #1547 were supplied by Mr. Shujiro Ito - Technical Director of the plant under study. Mr Ito held the rank of Lt. General at the time of his retirement from the Japanese army in 1937.

(2.) Target 1547 consists of the Akashi Aircraft Engine Plant (Akashi Hatsudoki Kojo) and the Akashi Fuselage Plant (Akashi Kitai Kojo). Both of these plants belong to the Kawasaki Aircraft Co. (Kawasaki Kokuki Kabushiki, Kaisha) a joint stock company with a nominal capital of 300,000,000 yen, and a paid up capital of 150,000,000 yen. The company was incorporated in Nov. 1937

(3.) The aircraft engine plant was moved from Kobe to Akashi in Sept. 1940. The fuselage plant was moved from Gifue City to Akashi in Nov. 1940. Both plants were in production at the end of 1940

(4.) AIR RAIDS
The following raids were reported.
19. Jan .1945 Bombing Raid
22. June " " "
26. June " " "
28. July " " "
30. July " " "
7 July " Incendiary raid.

(5) Unexploded Bombs
19 Jan raid 30 28th. July only 4 dropped of which
22 June " None 2 did not explode
26 June " None 30th. July raid None.

Informant said it required three weeks to explode the 30 unexploded bombs of the 19 Jan. raid.

(6) Estimated Damage to Buildings etc.
including both Engine and Fuselage Plant

Raids	% Damaged	Possible Repair	Actual Repair
19 Jan	40	30	15
22 June	15	7	none
26 June	10	5	none
28 July	very slight	2	none
30 July	very slight	1	none

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MISC. NOTES ON TARGET NO. 1547

(7) Damage to Engines and Fuselages Within the Plant.

Raids	No. Engines in Plant	% Damaged	No. Fuselage in Plant	% Damaged
19 Jan	1509	15	662	14
22 & 26 June	96	50	228	54%
June & July	-----	-----	228	42
28 & 30 July	None	None		

9 (8)

Dispersal of Tools and Parts

- | | | | |
|----------|-----|--|-----------|
| Feb 1945 | (a) | Lead and bronze parts moved to Sakai. Number not known. | Not known |
| " | (b) | Lead and bronze parts moved to Nisshen Aircraft Metals Company in Kobe. Number moved 13. | 13 |
| " | (c) | Main connecting engine rods moved to Osaka Seisa Company at Fuku (near Osaka). Number moved 144. | 144 |
| " | (d) | Rocker arms moved to Hoto Branch. Number moved 62. | 62 |
| " | (e) | Case-hardened small parts moved to Hokuban Branch. Number not known. | Not known |
| " | (f) | Pistons moved to Showa Seiki Company. Number moved 20. | 20 |
| Feb-Apr | (a) | Crank shafts, rods and cam shafts of liquid-cooled engines moved to Ibaragi Plant of Osaka Seisa Co. Number moved 194. | 194 |
| March | (a) | Cutters moved to Otsu Branch. Number moved 90. | 90 |
| " | (b) | Inlet valves moved to Yashima Valve Co. Number moved 45. | 45 |
| April | (a) | Trial parts, jigs, and fixtures moved to Nishinomiya Branch. Number moved 222. | 222 |
| " | (b) | Jigs and fixtures moved to Yashiro Branch. Number moved 141. | 141 |

(9) Engine Production

The highest monthly production of engines was 480 in Oct. '44. Production for Dec. 1944, the last month of uninterrupted production before our raids began, was 410.

The type of engines, number of engines, and planes using each type for Oct 1944 are as follows:

Type	Number	Type plane in which used.
HA-115	210	(a) Ki-48 light bomber
		(b) Nakajima fighter
HA-40	200	Ki-61 fighter.
HA-140	70	Ki-61 modified type, fighter.

The total engine output of all Kawasaki plants, including target 1547, represented 25% of all the engines used in Japanese Army planes.

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MISC. NOTES ON TARGET NO. 1547

(10) Fuselage Production

Two types of fuselage were produced:

- (a) KI-45, a two seater fighter
- (b) KI-102, A night fighter

The engines used in these planes came from Mitsubishi Jukogy in Nagoya.

Total monthly production figures follow for both type of fuselage for the year 1944

Jan	76	May	62	Sept.	109
Feb.	78	June	70	Oct.	97
March	86	July	111	Nov.	51
April	88	August	119	Dec.	50

The figure for Dec. 1944 represents 14 of KI-45 type and 36 of KI-102 type

Total production for Jan. 1945 was 14 of the night fighters KI-102, improved type.

(11) Financial Loss

The financial loss resulting from the 19th Jan. raid on Target #1547 was estimated at 130,000,000 Yen.

The total loss to all five of the Kawasaki plants (Akashi, Gifu, Miyakonojo, Kobe Metals, and Sakai) engaged in aircraft production, as a result of all raids, was estimated to be 450,000,000 Yen.

(12) Number of Workers.

Just prior to the raid of Jan. 19, 1945, about 25,000 workers were employed at target 1547. Subsequent to this raid the workers were gradually dispersed, and at the time of the raid on 22 June only 15,000 workers remained.

(13) Number of Dead and Injured

Raid	Dead	Injured
19 Jan. 1945	268	99
9 June "	104	53
(outside plant premises)		
22 June 1945	6	7
26 June "	5	19
7 July "	none	1
28 July "	none	none
30 July "	none	none

Miscellaneous Notes on
Target 1547

(14) Dispersal of Machinery

As of 1 Jan 1945, the number of machines (presses, machine tools etc.) at Target was 2171

By 22 June 1945 the number of machines etc left at the plant was 324. Of the 324 there were 228 (mostly tools) in the Engine Plant and 96 (mostly presses) in the Fuselage plant.

15 Damage to Machines etc in 19 Jan Raid.

The number of machines and machine tools damaged in this raid was 250

16 Damage for 22 June and 26 June Raids

50% of Fuselage in Fuselage Plant
42% of Machine Tools in Engine Plant

17 Production Cut after 22 and 26 June Raids

Fuselage assembly was reduced to 20%

18 Financial Loss of 19th. Jan Raid

Buildings	43,268,000
Machinery, Tools etc.	9,904,000
Stock	9,847,000
Semi-finished products	62,895,000
Miscellaneous	4,148,000
TOTAL	130,062,000 Yen

The above total was recognized by the insurance Co and paid.

~~18~~
19 Financial Loss of June and July Raids

The aggregate loss for the four raids in June and July on Target 1547 was 70 million yen. This sum was presented to the insurance companies but had not been paid as of 10th. Nov. 1945

20 Total Loss to Kawasaki Aircraft Co.

The total ~~loss~~ loss to this company as a result of the raids on its plants and establishments in 9 cities was estimated as 415,309,000 Yen

21 ~~PRE~~ (a) Production Figures for Target 1945

Month	Year	1945	Jan	Feb	March	April	May	June	July	August
Engine Assembly & for Tests			158	69	50	292	285	195	128	None
Fuselage			14	34	24	44	18	18	14	None
						8				

The figures for Dec. 1944 were Engines 410, Fuselage 50

22 Assembly and Testing at Target

An idea of the function of the Akashi plant may be gained from the following figures for July 1945 (a) 2/3 of the 128 engines turned out at Akashi (Target 1547) were air cooled and assembled at the Futami plant of the Kawasaki Aircraft Co.

MISCELLANEOUS NOTES ON TARGET NO. 1547

Kawasaki Aircraft Factory.
at
Akashi

By Mr. C. K. Parker. Oct. 30th. 1945

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by Mr. Shujiro Ito-Technical Director of the plant under study. Mr Ito held the rank of Lt. General at the time of his retirement from the Japanese army in 1937.

(2.) Target 1547 consists of the Akashi Aircraft Engine Plant (Akashi Hatsudoki Kojo) and the Akashi Fuselage Plant (Akashi Kitai Kojo). Both of these plants belong to the Kawasaki Aircraft Co. (Kawasaki Kokuki Kabushiki Kaisha) a joint stock company with a nominal capital of 300,000,000 yen, and a paid up capital of 150,000,000 yen. The company was incorporated in Nov. 1937

(3.) The aircraft engine plant was moved from Kobe to Akashi in Sept. 1940. The fuselage plant was moved from Cifle City to Akashi in Nov. 1940. Both plants were in production at the end of 1940

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The following raids were reported.

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Informant said it required three weeks to explode the 30 unexploded bombs of the 19 Jan. raid.

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June & July	-----	-----	228	42
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Notes by
C.K.ParkerMiscellaneous Notes on
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Notes by
C.K.Parker

Miscellaneous Notes

on

Target 1547 (Cont)

The engines were only tested at Akashi

(b) One third of the 128 Engines turned out at Akashi were watercooled. 60% of the assembly work on these engines was done at the Takatsuki plant of the Kawasaki Aircraft Co. and only the final 40% of the assembly work and the testing were done at Akashi.

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