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U. S. AND BRITISH SERVICES  
FOR THE USE OF ALLIED FORCES

FUNCTIONAL ANALYSIS REPORT NO. F/A - 258

Date 9 August 1945

TARGET NO: 90:36-546 ~~and other~~

NAME OF TARGET: MITSUBISHI STEEL AND ARMS WORKS

LOCATION: NAGASAKI, KYUSHU, JAPAN      COORDINATES: 32°45'N 129°52'E

PHOTOGRAPHY:	Date	Mission	Print Nos
	30 October 1943	M10/25	V:35-37
	21 August 1944	M7 AC288	R:4-6 - L:4-6
	30 April 1945	3PR/5M180	3R:31-34

1. This report has been prepared from a study of aerial photographs and a consideration of evaluated ground information supplied by the Joint Target Group.
2. FUNCTION:  
It is reported that the Mitsubishi Steel and Arms Plant at NAGASAKI is engaged in producing torpedoes, naval munitions, castings, forgings of all types and ships plate.  
For the purpose of this report, the works have been divided into sections "A" and "B". Section "A" which is by far the largest part of the works, covers an extensive area on the E bank of the URAKAMI River, whilst area "B" is located on the W bank of the river almost opposite the main boiler house of Area "A". Section "B" is listed as Target No. 1796 in Air Objective Folder 90.36. It consists of a probable small mill and foundry plant.
3. LOCATION:  
The main works referred to as section "A" are located on the E bank of the URAKAMI River about  $\frac{1}{2}$  mile N of NAGASAKI-KO harbor. Section "B" of the works is located opposite area "A" on the W bank of the river.
4. SERVICES:  
The works are well served by both rail, road and river.
5. IDENTIFICATION OF FACILITIES:      Section "A"

Building	Occupancy
1,2	Probable stores and small warehouses
3	Unidentified small building
4a	Probable cold finishing mill approximately 557' x 65'
4b	Probable hot mill with soaking pit approximately 700' x 65'
4c-e	Probable hot mill with soaking pit approximately 458' x 196'
5a,b	Unidentified large building approximately 242' x 147'
6a	Probable soaking pit
6b	Probable mill approximately 310' x 72'
6c	Probable boiler house
6d	Probable cold mill
6e	Probable soaking pit
6f	Probable hot mill approximately 324'. This mill may possibly have electric furnaces.
6g	Probable small furnaces
7	Unidentified building approximately 156' x 68'
8	Possible transformer house
9a,c	Probable mill
9b	Probable hot mill

5. IDENTIFICATION OF FACILITIES (CONTINUED)

Building	Occupancy (Section "A" Cont'd)
9d	Probable warehouse. Small type cranes seen overhanging the wharf
9e	Coal conveyor and probable coal crushing and blending equipment
9f	Main boiler house
9g	Unidentified building approximately 164' x 36'
9h	Probable mill approximately 596' x 131'
9j	Probable mill approximately 465' x 45'
9k	Small conveyor possibly used for conveying pit head coal dust to boiler house
10-15	Probable stores buildings and warehouses
16,17	Probable store houses
18	Probable store buildings
19	Probable small warehouse
20	Probable assembly shops
20a,b	Reported administrative offices
21a	Probable mill approximately 420' x 49'
21b	Probable rolling mill approximately 650' x 82'
22	Unidentified - probable small warehouse
23	Probable rolling mill approximately 590' x 154'
24	Unidentified - possible small warehouse
25	Probable hot mill with furnaces approximately 525' x 56'
26,27	Unidentified
28	Probable hot mill with furnaces approximately 490' x 56'
29-31	Probable small stores and repair shops
32-34	Probable small stores
35	Probable engineering shops with forge approximately 376' x 163'
36-44	Probable stores and repair shops
45	Covered in corridor
46,47	Probable offices
48a-c	Probable engineering shops approximately 384' x 355'
49a-h	Probable assembly shops and stores building approximately 610' x 232'
50	Probable assembly shop and storage building approximately 374' x 142'
51-54	Probable stores buildings and repair shops

## SECTION "B"

55,56	Probable stores buildings
57a	Probable foundry
57b-f	Probably mill
58	Probable warehouse

6. DISCUSSION:A. NEW CONSTRUCTION

The Mitsubishi Steel and Arms Works was last reported on in report No. 14 dated 14 April 1944 under the heading "Industry". Since that date a considerable amount of reconstruction of buildings has taken place. No.4c-e at the N end of the works replaces a number of former small buildings and now includes a furnace. Its probable function is that of a hot mill. No.49a-h alongside the railway track in the SE corner of the works, originally was a spinning mill, but has now been entirely reconstructed. It is probably used as an assembly plant. A P.O.W. who was employed there until the end of 1943 states in Economic Bulletin No.97 dated 27 April 1945, that the building is used as a dormitory, but this is thought to be very unlikely. No.50 in the SW corner is an entirely new building; it measures approximately 374' x 142' and is probably used as an assembly shop and storage house. No.41 is an entirely new building and is probably used for store or repair work.

A small type conveyor can be seen leading from the railway siding across the rail tracks and into the interior court of the main boiler house its exact functions, other than for conveying coal, is unknown. Interpretation of the boiler house area generally is made difficult by the amount of shadow thrown by the buildings. Inside the boiler house court can be seen a large coal conveyor with a large coal pile at its base.

6. DISCUSSION (CONTINUED)B. OPEN HEARTH AND ELECTRIC FURNACES

It has been reported the works include 12 open hearth furnaces and a number of electrical furnaces. As regards the open hearth type, it is not possible to say if there are any there or not from the photographs available, but it can be stated that if they do exist they are not seen as the usual row of open hearths, however, they could be individually placed, such as are seen between buildings Nos. 25 and 28, where 4 small stacks are seen. However, the quality of the prints is not good enough for a statement to be made. No.8 building has the general characteristics of a transformer house and, although no transmission towers or lines are seen anywhere about, it may possibly be they are buried. Assuming building No.8 is a transformer house, then the group of buildings Nos. 6a to f would almost certainly be concerned with electrical furnaces.

C. PRODUCTS

No evidence can be obtained by a study of the aerial photographs available of the exact type of material being produced at the plant. It is, however, suggested that it is of a small nature such as castings, possible armoured plate and light engineering products. This opinion has been reached after paying particular attention to the type of freight car seen in the works sidings and at NAGASAKI station, all of which are of a small/medium type of truck.

7. ACTIVITY:

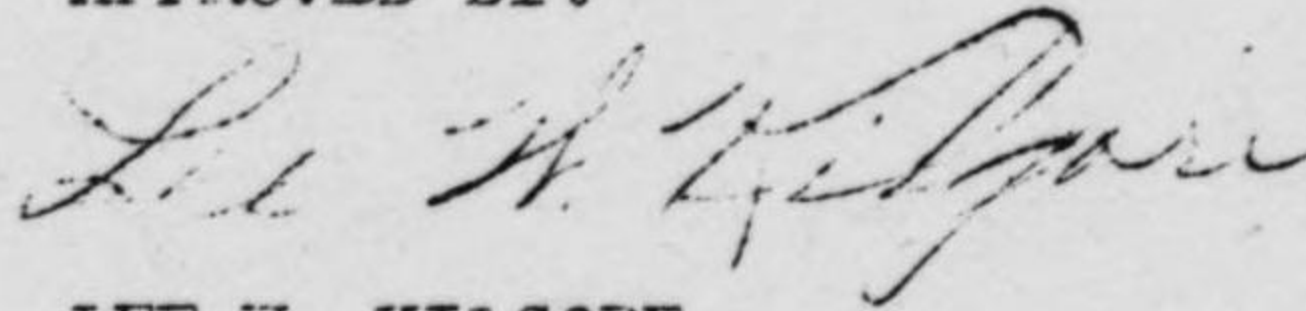
The works appeared to be active on 30 April 1945; a small number of freight cars could be seen standing in the works sidings, and a number of motor trucks in and about the works are visible. Further evidence of activity is that smoke is definitely seen issuing from one of the stacks in the main boiler house. No smoke can be seen coming from the other stacks in the plant, but this does not necessarily go to show that the fires are out, since often in the climatic conditions existing in Japan, smoke is very often not visible on aerial photographs.

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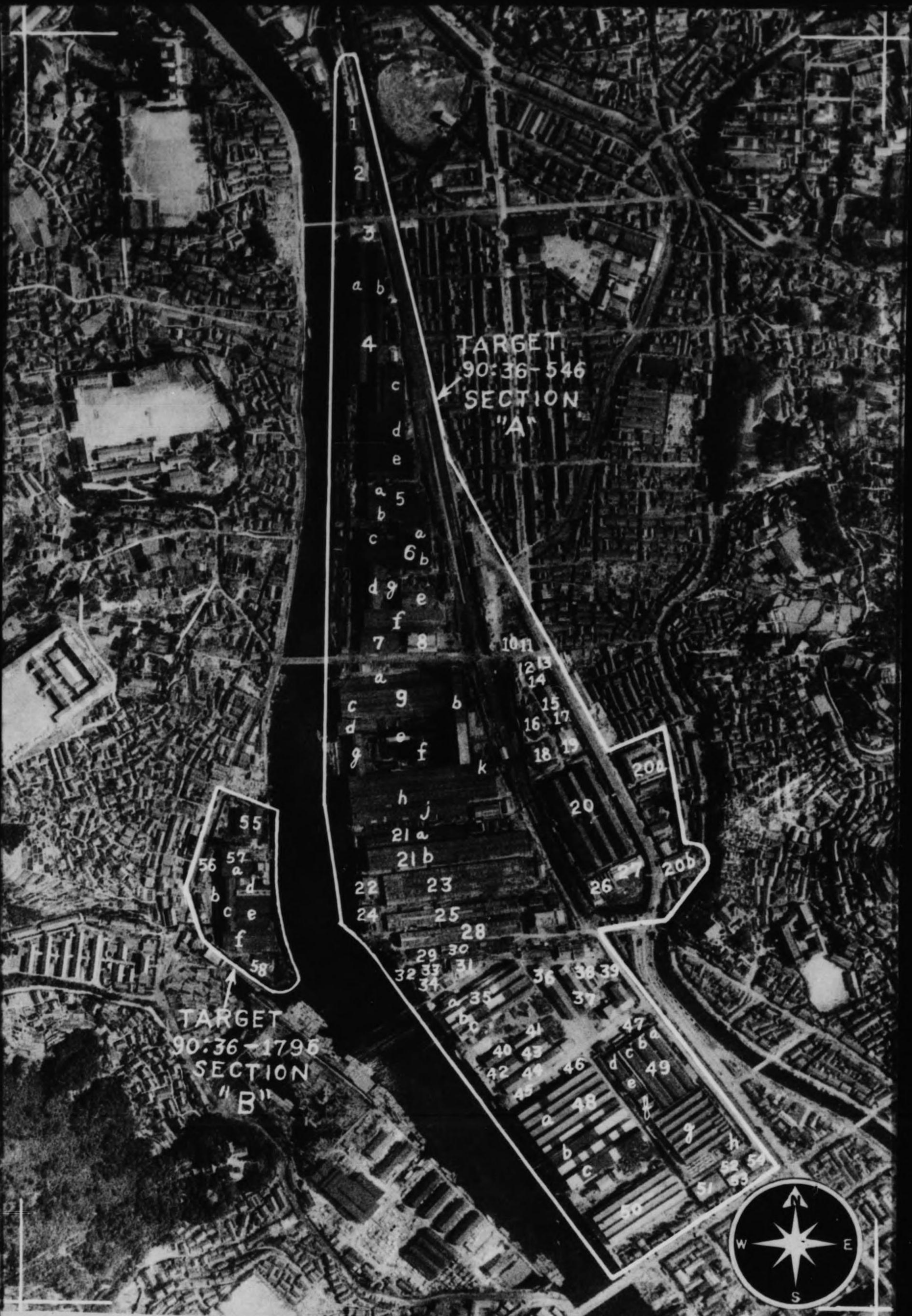
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TARGET NO. 90:36-546 NAME MITSUBISHI STEEL DATE 18 August 1945 IP/4  
-1796 & ARMS WORKS COMPLETED

APPROX. COORD. 32° 45' N-129° 52' E PHOTO DATE 30 April 1945 SCALE 1:6,000

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