3

AICHI ORDNANCE PLANT
90.20-198
Lat. 35° 07' N - Long. 136° 54' E
NAGOYA, JAPAN

1. DESCRIPTION OF TARGET

a. Aichi Ordnance Plant, Nagoya, was engaged in the manufacture of precision ordnance (torpedoes, mines and bombs), and in the assembly of airframes.

b. The plant is located 2½ miles south of the center of the city, 4 miles south of Nagoya Castle, and 2 miles north of Nagoya Harbor.

c. The plant comprises 44 buildings which have a total built-up area of approximately 1,152,000 sq.ft.

2. SUMMARY

a. Two functional analyses were made, one by JTG which was fair, the other by CIU (XXI B.C.) which was ~~below average~~ poor. Of the 60 buildings and subdivisions checked in the JTG report there were:

sounds rather good to me.

(1) 26 identified correctly

(2) 21 identified as having similar occupancy

(3) 6 unidentified

(4) 7 incorrectly identified

~~In the C.I.U. functional analysis report~~ Of the 61 buildings and subdivisions checked in the CIU report there were:

is this really below average?

(1) 10 identified correctly

(2) 49 ~~identified as having similar occupancy~~ unidentified

This table does not agree with that in 5d

(3) 2 incorrectly identified.

b. The structural analysis by JTG was generally good. In the construction-type category, of 106 buildings and subdivisions on which comparable data were available, 77 were correct. In the combustibility category, of 144 buildings and subdivisions, 112 were correct.

c. Three damage assessment reports were made, by JTG, CIU, and OAS (Operations Analysis Section - XXI B.C.).

(1) JTG damage assessment checked very closely with the field data as shown in table ____:

TABLE ____

	Actual Sq.Ft.	Reported Sq.Ft.
Total buildings area	1,152,000	1,231,000
Structural damage	528,500	579,900
Superficial damage	562,700	627,200
Total damage	1,091,200	1,207,100

(2) CIU damage assessment was less accurate than JTG's as shown in table ___:

TABLE ___

	Actual Sq.Ft.	Reported Sq.Ft.
Total building area	1,152,000	1,188,000
Structural damage	528,500	363,500
Superficial damage	562,700	767,300
Total damage	1,091,200	1,130,800

(3) O.A.S. damage assessment was the least accurate of the three as shown in table ***:

TABLE ___

	Actual Sq.Ft.	Reported Sq.Ft.
Total building area	1,152,000	1,165,700
Structural damage	528,500	634,000
Superficial damage	562,700	194,900
Total damage	1,091,200	828,900

Put in another section

3. SUMMARY OF REMARKS

a. The overall interpretation work on this plant by JTG is superior. It would appear that the principle ~~contributing~~ cause ~~for~~ of the lesser accuracy of the work done in the field ~~is~~ was the limited time available for the work.

4. SOURCE OF DATA

a. Reported

(1) AC/AS Intell. F/A Report #222 - 16 July 1945

(2) CIU (XXI B.C.) Industrial Report #9 - 27 March 1945

(3) AC/AS Intell. S/A Report #72 - 30 July 1945

(4) AC/AS Intell. Limited D/A Report #59 - 20 July 1945

(5) CIU (XXI B.C.) D/A Report #89 - 14 June 1945

(6) XXI B.C., O.A.S. Report on Mission #193 - 30 June 1945

b. FIELD DATA

(1) USSBS Physical Damage Team #5 field notes.

5. FUNCTIONAL ANALYSIS

a. USE OF PLANT:

Reported: Manufacture of precision ordnance and aircraft parts.

Actual: Manufacture of precision ordnance (torpedoes, mines, bombs) and assembly of airframes.

b. BOUNDARIES:

Correct except for inclusion of 4 small buildings just north of extreme northern tip of plant area.

c. BUILDING~~S~~ IDENTIFICATION: (See F/A Table)

d. SUMMARY OF TABULATION:

		JTG TOTAL BUILDING		CIU TOTAL BUILDINGS	
		No. Bldgs.	%	No. Bldgs.	%
	Correct	26	43	10	16
POINT SCORES	Of similar occupancy	21	35	0	--
	Unidentified	6	10	49	81
Total Plant(JTG) 71	Incorrect	7	12	2	3
Total Plant(CIU) 52	Total	60	100	61	100

e. REMARKS:

The analysis by JTG is fair, that of CIU is somewhat less~~er~~ poor. A very appreciable error is noted in the failure to identify the function of the part of the plant engaged in A/C assembly.

in which ~~one~~ report?

does not agree with Table in 2 a

6. STRUCTURAL ANALYSIS

a. CHECK ON SCALE MEASUREMENT:

(1) Accuracy varied from 91.0% to 99.8%. Scale check on the two F/A Reports averaged 95.3% accurate.

(2) Plan areas are about 95% correct.

b. S/A (See S/A Table)

c. SUMMARY OF TABULATION:

(1) Construction Type:

Construction Type	No. Bldgs.	No. Corr.	% Corr.
A1.1	33	26	79
A2.3	16	15	94
B1	3	3	100
B2	7	5	71
D	42	24	82
E1	2	2	100
E2	2	1	50
S	1	1	100
Total	106	77	73

(2) Combustibility:

Building Combustibility	No. Bldgs.	No. Corr.	% Corr.
Combustible (C)	52	33	71
Non-Combustible (N)	81	70	86
Fire-Resistant (R)	11	9	82
Total	144	112	78

7. DAMAGE ASSESSMENT:

a. (See D/A Table)

b. SUMMARY OF TABULATION:

	ACTUAL		JTG		CIU		OAS*	
	Sq.Ft.	% Dam	Sq.Ft.	%Dam	Sq.Ft.	% Dam.	Sq.Ft.	% Dam
Total Building Area	1,152,000		1,231,000		1,188,000		1,165,700	
Damage								
Structural	528,500	46	579,900	47	363,500	31	634,000	55
Superficial	562,700	49	627,200	51	767,300	65	194,900	17
Total	1,091,200	95	1,207,100	98	1,130,800	96	828,900	72

(*Operational Analysis Section)

c. REMARKS:

(1) The JTG damage assessment was quite accurate.

(2) The CIU assessment was somewhat less accurate, probably due to the shorter time available in the field.

(3) The O.A.S. assessment was very poor ~~showing~~ and indicates either careless work or an unskilled interpret~~ation~~or

3

AICHI ORDNANCE PLANT
90.20-198
Lat. 35° 07' N - Long. 136° 54' E
NAGOYA, JAPAN

1. DESCRIPTION OF TARGET

a. Aichi Ordnance Plant, Nagoya, was engaged in the manufacture of precision ordnance (torpedoes, mines and bombs), and in the assembly of airframes.

b. The plant is located 2½ miles south of the center of the city, 4 miles south of Nagoya Castle, and 2 miles north of Nagoya Harbor.

c. The plant comprises 44 buildings which have a total built-up area of approximately 1,152,000 sq.ft.

2. SUMMARY

a. Two functional analyses were made, one by JTG which was fair, the other by CIU (XXI B.C.) which was below average. Of the 60 buildings and subdivisions checked in the JTG report there were:

(1) 26 identified correctly

(2) 21 identified as having similar occupancy

(3) 6 unidentified

(4) 7 incorrectly identified

~~In the C.I.U. functional analysis report~~ Of the 61 buildings and subdivisions checked in the CIU report there were:

(1) 10 identified correctly

(2) 49 ~~identified as having similar~~ occupancy

(3) 2 incorrectly identified.

b. The structural analysis by JTG was generally good. In the construction-type category, of 106 buildings and subdivisions on which comparable data were available, 77 were correct. In the combustibility category, of 144 buildings and subdivisions, 112 were correct.

c. Three damage assessment reports were made by JTG, CIU, and OAS (Operations Analysis Section - XXI B.C.).

(1) JTG damage assessment checked very closely with the field data as shown in table ____:

TABLE ____

	Actual Sq.Ft.	Reported Sq.Ft.
Total buildings area	1,152,000	1,231,000
Structural damage	528,500	579,900
Superficial damage	562,700	627,200
Total damage	1,091,200	1,207,100

(2) CIU damage assessment was less accurate than JTG's as shown in table ___:

TABLE ___

	Actual Sq.Ft.	Reported Sq.Ft.
Total building area	1,152,000	1,188,000
Structural damage	528,500	363,500
Superficial damage	562,700	767,300
Total damage	1,091,200	1,130,800

(3) O.A.S. damage assessment was the least accurate of the three as shown in table ***:

TABLE ___

	Actual Sq.Ft.	Reported Sq.Ft.
Total building area	1,152,000	1,165,700
Structural damage	528,500	634,000
Superficial damage	562,700	194,900
Total damage	1,091,200	828,900

3. SUMMARY OF REMARKS

a. The overall interpretation work on this plant by JTG is superior. It would appear that the principle contributing cause for the lesser accuracy of the work done in the field is the limited time available for the work.

4. SOURCE OF DATA

a. Reported

(1) AC/AS Intell. F/A Report #222 - 16 July 1945

(2) CIU (XXI B.C.) Industrial Report #9 - 27 March 1945

(3) AC/AS Intell. S/A Report #72 - 30 July 1945

(4) AC/AS Intell. Limited D/A Report #59 - 20 July 1945

(5) CIU (XXI B.C.) D/A Report #89 - 14 June 1945

(6) XXI B.C., O.A.S. Report on Mission #193 - 30 June 1945

b. FIELD DATA

(1) USSBS Physical Damage Team #5 field notes.

5. FUNCTIONAL ANALYSIS

a. USE OF PLANT:

Reported: Manufacture of precision ordnance and aircraft parts.

Actual: Manufacture of precision ordnance (torpedoes, mines, bombs) and assembly of airframes.

b. BOUNDARIES:

Correct except for inclusion of 4 small buildings just north of extreme northern tip of plant area.

c. BUILDINGS IDENTIFICATION: (See F/A Table)

d. SUMMARY OF TABULATION:

		JTG TOTAL BUILDINGS		CIU TOTAL BUILDINGS	
		No. Bldgs.	% Corr.	No. Bldgs.	% Corr.
	Correct	26	43	10	16
POINT SCORES	Of similar occupancy	21	35	0	--
	Unidentified	6	10	49	81
Total Plant(JTG) 71	Incorrect	7	12	2	3
Total Plant(CIU) 52	Total	60	100	61	100

e. REMARKS:

The analysis by JTG is fair, that of CIU is somewhat less. A very appreciable error is noted in the failure to identify the function of the part of the plant engaged in A/C assembly.

6. STRUCTURAL ANALYSIS

a. CHECK ON SCALE MEASUREMENT:

(1) Accuracy varied from 91.0% to 99.8%. Scale check on the two F/A Reports averaged 95.3% accurate.

(2) Plan areas are about 95% correct.

b. S/A (See S/A Table)

c. SUMMARY OF TABULATION:

(1) Construction Type:

Construction Type	No. Bldgs.	No. Corr.	% Corr.
A1.1	33	26	79
A2.3	16	15	94
B1	3	3	100
B2	7	5	71
D	42	24	82
E1	2	2	100
E2	2	1	50
S	1	1	100
Total	106	77	73

(2) Combustibility:

Building Combustibility	No. Bldgs.	No. Corr.	% Corr.
Combustible (C)	52	33	71
Non-Combustible (N)	81	70	86
Fire-Resistant (R)	11	9	82
Total	144	112	78

7. DAMAGE ASSESSMENT:

a. (See D/A Table)

b. SUMMARY OF TABULATION:

	ACTUAL		JTG		CIU		OAS*	
	Sq.Ft.	% Dam	Sq.Ft.	%Dam	Sq.Ft.	% Dam.	Sq.Ft.	% Dam
Total Building Area	1,152,000		1,231,000		1,188,000		1,165,700	
Damage								
Structural	528,500	46	579,900	47	363,500	31	634,000	55
Superficial	562,700	49	627,200	51	767,300	65	194,900	17
Total	1,091,200	95	1,207,100	98	1,130,800	96	828,900	72

(*Operational Analysis Section)

c. REMARKS:

(1) The JTG damage assessment was quite accurate.

(2) The CIU assessment was somewhat less accurate, probably due to the shorter time available in the field.

(3) The O.A.S. assessment was very poor ~~showing~~ and indicates either careless work or an unskilled interpretation.

2

AICHI ORDNANCE PLANT
90.20-198
LAT. 35° 07' N - LONG. 136° 54' E
NAGOYA, JAPAN

1. DESCRIPTION OF TARGET

a. Aichi Ordnance Plant, Nagoya, was engaged in the manufacture of precision ordnance (torpedoes, mines and bombs), and in the assembly of airframes.

b. The plant is located 2½ miles ~~S.~~ south of the center of the city, 4 miles ~~S.~~ south of Nagoya Castle, and 2 miles ~~N.~~ north of Nagoya Harbor.

c. The plant comprises 44 buildings which have a total built-up area of approximately 1,152,000 sq ft.

2. SUMMARY

a. Two functional analyses were made, one by JTG, which was fair, the other by CIU (XXI B.C.) which was below average. ~~Of the former, with~~

Of the 60 buildings and ~~[illegible]~~ subdivisions checked in the JTG report there were:

(1) 26 identified correctly

(2) 21 identified as having similar occupancy

(3) 6 unidentified

(4) 7 incorrectly identified

In ~~the C.I.U functional analysis, of 61 buildings and some of their sub-divisions:~~ Of the 61 buildings and subdivisions checked in the CIU report there were:

(1) 10 identified correctly

(2) 49 identified as having similar occupancy

(3) 2 incorrectly identified.

b. The structural analysis by JTG was generally good. ~~in the overall~~ In the construction-type category, of 106 buildings and subdivisions on which comparable data were available, 77 were correct. In the combustibility category, of 144 buildings and subdivisions, 112 were correct.

c. Three damage assessment reports were made by JTG, CIU, and OAS (Operations Analysis Section - XXI B.C.).

(1) JTG damage assessment checked very closely with the field data as shown in Table —

Table —

	Actual Sq Ft.	Reported Sq Ft
Total Building Area	1,152,000	1,231,000
Structural damage	528,500	579,900
Superficial damage	562,700	627,200
Total damage	1,091,200	1,207,100

(2) CIU Damage assessment was less accurate than JTG's as shown in Table —

Table —

	Actual Sq Ft	Reported Sq Ft
Total Building Area	1,152,000	1,188,000
Structural damage	528,500	363,500
Superficial damage	562,700	767,300
Total damage	1,091,200	1,130,800

(3) O.A.S. Damage assessment [redacted] least accurate of the three. as shown in Table —

Table —

	Actual Sq Ft	Reported Sq Ft
Total Building Area	1,152,000	1,165,700
Structural damage	528,500	634,000
Superficial damage	562,700	194,900
Total damage	1,091,200	828,900

3. ~~GENERAL~~ SUMMARY OF REMARKS

a. The overall interpretation work on this plant by JTG is superior. It would appear that the principle contributing cause for the lesser accuracy of the work done in the field is ~~traceable to~~ the limited time available for the work. ~~and in the case of OAS, it~~ also

4. ~~REFERENCE ITEMS~~ Source of data (Copy)

a. Reported

(1) AC/AS Intell. F/A Report #222 - 16 July 1945

(2) CIU (XXI B. C.) Industrial Report #9 - 27 March 1945

(3) AC/AS Intell. S/A Report #72 - 30 July 1945

(4) AC/AS Intell. Limited D/A Report #59 - 20 July 1945

(5) CIU (XXI B. C.) D/A Report #89 - 14 June 1945

(6) XXI B. C., O.A.S. Report on Mission #193 - 30 June 1945

b. Field data

~~b. USSBS Physical Damage Team #5 field notes.~~

(1) USSBS Physical Damage Team #5 field notes.

5.(4) ~~F/A~~ - FUNCTIONAL ANALYSIS

a./. USE OF PLANT:

Reported: Manufacture of precision ordnance and aircraft parts.

Actual: Manufacture of precision ordnance (torpedoes, mines, bombs) and assembly of airframes.

b./. BOUNDARIES:

Correct except for inclusion of 4 small buildings just ~~N.~~ north of extreme northern tip of plant area.

c./. BUILDING IDENTIFICATION: (See F/A Table) 5D

d./. SUMMARY OF TABULATION:

Point Scores

~~JTG 71~~
Total Plant (JTG) 71

~~CIU 52~~
Total Plant (JTG) 52

	JTG TOTAL BLDGS.		CIU TOTAL BLDGS.	
	No. Bldgs.	% Corr.	No. Bldgs.	% Corr.
Correct	26	43	10	16
Of similar occupancy	21	35	0	-
Unidentified	6	10	49	81
Incorrect	7	12	2	3
Total	60	100	61	100

e./. ~~SUMMARY OF~~ REMARKS:

The analysis by JTG is fair, that of CIU is somewhat less so. A very appreciable error is noted in the failure to identify the function of the part of the plant engaged in A/C assembly.

6. ~~(R)~~ 6a S/A - STRUCTURAL ANALYSIS

a.1. CHECK ON SCALE MEASUREMENT:

(1) Accuracy varied from 91.0% to 99.8%. Scale check on the two F/A Reports averaged 95.3% accurate.

(2) Plan areas ~~check to about~~ are about 95% correct.

b.1. S/A (See S/A Table)

c.1. SUMMARY OF TABULATION:

(1) CONSTRUCTION TYPES

Construction Type	No. Bldgs.	No. Corr.	% Corr.	% Corr.
A1.1	33	26	79	
~~.2~~	~~0~~			
~~.3~~	~~0~~			
~~.4~~	~~0~~			79
~~A2.1~~	~~0~~			
~~.2~~	~~0~~			
A2.3	16	15	94	
~~.4~~	~~0~~			
~~.5~~	~~0~~			94
B1	3	3	100	100
B2	7	5	71	71
~~C1.1~~	~~0~~			
~~.2~~	~~0~~			
~~.3~~	~~0~~			
~~.4~~	~~0~~			-
~~C2.1~~	~~0~~			
~~.2~~	~~0~~			
~~.3~~	~~0~~			
~~C3~~	~~0~~			-
D	42	24	82	82
E1	2	2	100	100
E2	2	1	50	50
~~F1~~	~~0~~			
~~F2~~	~~0~~			-
S	1	1	100	100
TOTAL	106	77	73	73

leave out sections not line drawn thru them

(2) COMBUSTIBILITY

Building Combustibility

~~Combustibility~~	No. Bldgs.	No. Corr.	% Corr.
Combustible (C)	52	33	71
Non-Combustible (N)	81	70	86
Fire-Resistant (R)	11	9	82
TOTAL	144	112	78

7. (2) ~~D/A~~ DAMAGE ASSESSMENT:

a/. (See D/A Table)

b/. SUMMARY OF TABULATION:

	ACTUAL		JTG		CIU		OAS*	
	Sq Ft	% Dam.	Sq Ft	% Dam.	Sq Ft	% Dam.	Sq Ft	%Dam.
Total Bldg. Area	1,152,000		1,231,000		1,188,000		1,165,700	
Damage								
Structural	528,500	46	579,900	47	363,500	31	634,000	55
Superficial	562,700	49	627,200	51	767,300	65	194,900	17
Total	1,091,200	95	1,207,100	98	1,130,800	96	828,900	72

(*Operational Analysis Section)

c3. ~~SUMMARY OF~~ REMARKS:

(1) a. The JTG damage assessment was ~~borne out very well by the facts. This is due probably to the relatively greater time and effort available for the work.~~ quite accurate.

(2) b. The CIU assessment was somewhat less accurate, ~~and may be traceable~~ probably due to the ~~relatively~~ shorter time available in the field. ~~particularly at that time.~~

(3) c. The O.A.S. assessment ~~made~~ was very A poor showing ~~indicating perhaps less careful work.~~ and indicates either careless work on ~~incompetent~~ or unskilled interpretation.

FOR BOOK

(1)

AICHI ORDNANCE PLANT

90.20 - 198

LAT. 35°07'N - LONG. 136°54'E

NAGOYA, JAPAN

1. DESCRIPTION OF TARGET.

a. AICHI ORDNANCE PLANT, NAGOYA WAS ENGAGED IN THE MANUFACTURE OF PRECISION ORDNANCE (TORPEDOES, MINES, AND BOMBS) AND IN THE ASSEMBLY OF AIRFRAMES.

b. THE PLANT IS LOCATED 2 1/2 MILES S. OF THE CENTER OF THE CITY, 4 MILES S. OF NAGOYA CASTLE AND 2 MILES ~~WE~~ N. OF NAGOYA HARBOR.

c. THE PLANT COMPRISES 44 BUILDINGS WHICH HAVE A TOTAL BUILT-UP AREA OF APPROXIMATELY 1,152,000 ~~1,142,000~~ SQ. FT.

2. SUMMARY

a. TWO FUNCTIONAL ANALYSES WERE MADE, one BY JTG, ~~THE OTHER BY~~ WHICH WAS FAIR. THE OTHER BY C-1.V. (XI B.C.) WHICH WAS **BELOW** AVERAGE. OF THE ~~THE~~ FORMER, WITH 60 BUILDINGS AND SOME OF THEIR SUBDIVISIONS CHECKED:

(1) 26 IDENTIFIED CORRECTLY

(2) 21 IDENTIFIED AS ~~OF~~ HAVING SIMILAR OCCUPANCY

(3) 6 UNIDENTIFIED

(4) 7 INCORRECTLY IDENTIFIED

FOR THE C.I.U. FUNCTIONAL ANALYSIS, OF 61 BUILDINGS AND SOME OF THEIR SUBDIVISIONS:

(1) 10 IDENTIFIED CORRECTLY

(2) 49 ~~IDENTIFIED AS HAVING SIMILAR~~ 11 (unidentified OCCUPANCY

(3) 2 INCORRECTLY IDENTIFIED

b. THE STRUCTURAL ANALYSIS BY JTG WAS GOOD IN THE OVERALL. IN THE CONSTRUCTION-TYPE CATEGORY, OF 186 BUILDINGS AND SUBDIVISIONS ON WHICH COMPARABLE DATA WERE AVAILABLE, 77 WERE CORRECT. IN THE COMBUSTIBILITY CATEGORY, OF ~~95~~ 144 BUILDINGS and SUBDIVISIONS, 112 WERE CORRECT.

c. THREE DAMAGE ASSESSMENT REPORTS WERE MADE ~~OUT~~ BY JTG., CIU, AND OAS. (OPERATIONS ANALYSIS SECTION - ~~XX~~ D.C.)

a. JTG DAMAGE ASSESMENT ~~[illegible]~~ CHECKED ~~[illegible]~~ VERY CLOSELY WITH THE FIELD DATA.

	ACTUAL SQ. FT	~~[illegible]~~	REPORTED SQ. FT.	~~[illegible]~~
TOTAL AREA	1,152,000		1,231,000	
STRUCTURAL DAMAGE	528,500	44	579,900	47
SUPERFICIAL DAMAGE	562,700	49	627,200	51
TOTAL	1,091,200	95	1,207,100	98

b. CIU DAMAGE ASSESSMENT WAS LESS ACCURATE. ~~AND~~ THAN JTG'S,

	ACTUAL SQ. FT.	REPORTED SQ. FT.
TOTAL AREA	1,152,000	1,188,000
STRUCTURAL DAMAGE	528,500	363,500
SUPERFICIAL DAMAGE	562,700	767,300
TOTAL	1,091,200	1,130,800

c. "O.A.S. DAMAGE ASSESSMENT WAS POOR.

	ACTUAL	REPORTED
TOTAL AREA	1,152,000	1,165,700
STRUCTURAL DAMAGE	528,500	634,000
SUPERFICIAL DAMAGE	562,700	194,900
TOTAL	1,091,200	828,900

3. GENERAL REMARKS.

a. THE OVERALL INTERPRETATION WORK ON THIS PLANT BY JTG IS SUPERIOR. IT WOULD APPEAR THAT THE ~~[illegible]~~ AS ~~[illegible]~~ PRINCIPLE CONTRIBUTING CAUSE ~~OF~~ FOR THE LESSER ACCURACY OF THE WORK DONE IN THE FIELD IS TRACEABLE TO LIMITED TIME AVAILABLE FOR THE WORK.

4. REFERENCE ITEMS.

a. REPORTED

(1) AC/AS INTELL. F/A REPORT #232 - 16 JULY 1945
(2) ~~XXI~~ B.C. INDUSTRIAL REPORT #9 - 27 MARCH 1945
(3) AC/AS INTELL. S/A REPORT #72 - 30 JULY 1945

(4) AC/AS INTELL. LIMITED D/A REPORT #59 - 20 JULY 1945

(5) XXI B.C. D/A REPORT #89 - 14 JUNE 1945

(6) XXI B.C. O.A.S. REPORT ON MISSION #193 -

30 JUNE 1945

b. USSBS PHYS. DAM. TEAM #5 FIELD NOTES.

FOR BOOK

UNITED STATES STRATEGIC BOMBING SURVEY
(PACIFIC)

PHOTO INTELLIGENCE CENTER
PHOTO INDUSTRIAL SECTION

Third Level Report No._____
Page No._____

(A) F/A - FUNCTIONAL ANALYSIS

1. USE OF PLANT:

Reported: MANUFACTURE OF PRECISION ORDNANCE AND AIRCRAFT PARTS

Actual: MANUFACTURE OF PRECISION ORDNANCE (TORPEDOES, MINES, BOMBS) AND ASSEMBLY OF AIRFRAMES.

2. BOUNDARIES:

CORRECT EXCEPT FOR INCLUSION OF 4 SMALL BUILDINGS JUST N. OF EXTREME NORTHERN TIP OF PLANT AREA.

3. BUILDING IDENTIFICATION: (See F/A Table

4. SUMMARY OF TABULATION:

POINT SCORES

JTG. 71

CIU 52

	J.T.G.		C.I.U.	
	TOTAL		TOTAL	
CORRECT	No BLDG	% CORR	No BLDG	% CORR
CORRECT	26	43	10	16
OF SIMILAR OCCUPANCY	21	35	0	—
UNIDENTIFIED	6	10	49	81
INCORRECT	7	12	2	3
TOTAL	60	100	61	100

5. SUMMARY OF REMARKS:

THE ANALYSIS BY JTG IS FAIR, THAT OF CIU IS SOMEWHAT LESS. AN APPRECIABLE ERROR IS NOTED IN THE FAILURE TO IDENTIFY THE FUNCTION OF THE PART ~~OF THE PART~~ OF THE PLANT ENGAGED IN A/C ASSEMBLE

~~6. SOURCES OF INFORMATION: (Both Reported and Field Data).~~

F012 BOOK

UNITED STATES STRATEGIC BOMBING SURVEY
(PACIFIC)

PHOTO-INTELLIGENCE CENTER
PHOTO-INDUSTRIAL SECTION

~~Third Level Report No. _____~~
Page No. _____

(B) S/A - STRUCTURAL ANALYSIS:

1. Check on scale measurement:

a. ACCURACY VARIED FROM 91.0% TO 99.8%. SCALE CHECK ON THE TWO F/A REPORTS AVERAGED 95.3% ACCURATE

b. PLAN AREAS CHECK TO ABOUT 95% CORRECT.

2. S/A (See S/A Table)

3. SUMMARY OF TABULATION:

SEE ATTACHED SHEET

~~4. SUMMARY OF REMARKS:~~

~~5. SOURCES OF INFORMATION (Both Reports and Field Data)~~

CONSTRUCTION TYPES

CONSTRUCTION TYPE	No. BLDGS.	No. CORR.	% CORR.	% CORR.
A1.1	33	26	79	
.2	0	–		
.3	0	–		
.4	0	–		79
A2.1	0	–		
.2	0	–		
.3	16	15	94	
.4	0	–		
.5	0	–		94
B1	3	3	100	100
B2	7	5	71	71
C1.1	0	–		
.2	0	–		
.3	0	–		
.4	0	–	–	–
C2.1	0	–		
2	0	–		
3	0	–		
C3	0	–		–
D	42	24	82	82
E1	2	2	100	100
E2	2	1	50	50
F1	0	–		–
F2	0	–		–
S	1	1	100	100
TOTAL	106	77		73

COMBUSTIBILITY

	No. BLDG.		No. CORR.		% CORR.	
COMBUSTIBLE (C)	38	52	27	33	71	71
NON-COMBUSTIBLE (N)	52	81	42	70	81	86
FIRE-RESISTANT (R)	5	11	3	9	60	82
TOTAL	95	144	72	112	76	78

FOR BOOK

UNITED STATES STRATEGIC BOMBING SURVEY
(PACIFIC)

PHOTO INTELLIGENCE CENTER
PHOTO INDUSTRIAL SECTION

Third Level Report No._____
Page No._____

(C) D/A - DAMAGE ASSESSMENT:

1. (See D/A Table)

2. SUMMARY OF TABULATION:

	ACTUAL DATA		JTG REPORT		CIU REPORT		O.A.S. * REPORT	
	SQ FT	% DAM.	SQ. FT.	% DAM.	SQ FT	% DAM.	SQ. FT.	% DAM.
TOTAL AREA	1,152,000		1,231,000		1,188,000		1,165,700	
DAMAGE								
STRUCTURAL	528,500	46	579,900	47	363,500	31	634000	55
SUPERFICIAL	562,700	49	627,200	51	767,300	65	194,900	17
TOTAL	1,091,200	95	1207,100	98	1,130,800	96	828900	72

* (OPERATIONAL ANALYSIS SECTION)

3. SUMMARY OF REMARKS:

a. THE JTG DAMAGE ASSEMENT WAS BORNE OUT VERY WELL BY THE FACTS. THIS IS DUE PROBABLY TO THE RELATIVELY GREATER TIME AND EFFORT AVAILABLE FOR THE WORK

b. THE CIU ASSESSMENT WAS SOMEWHAT LESS ACCURATE, AND MAY BE TRACEABLE TO THE RELATIVELY SHORTER TIME AVAILABLE IN THE FIELD — PARTICULARLY AT THAT TIME.

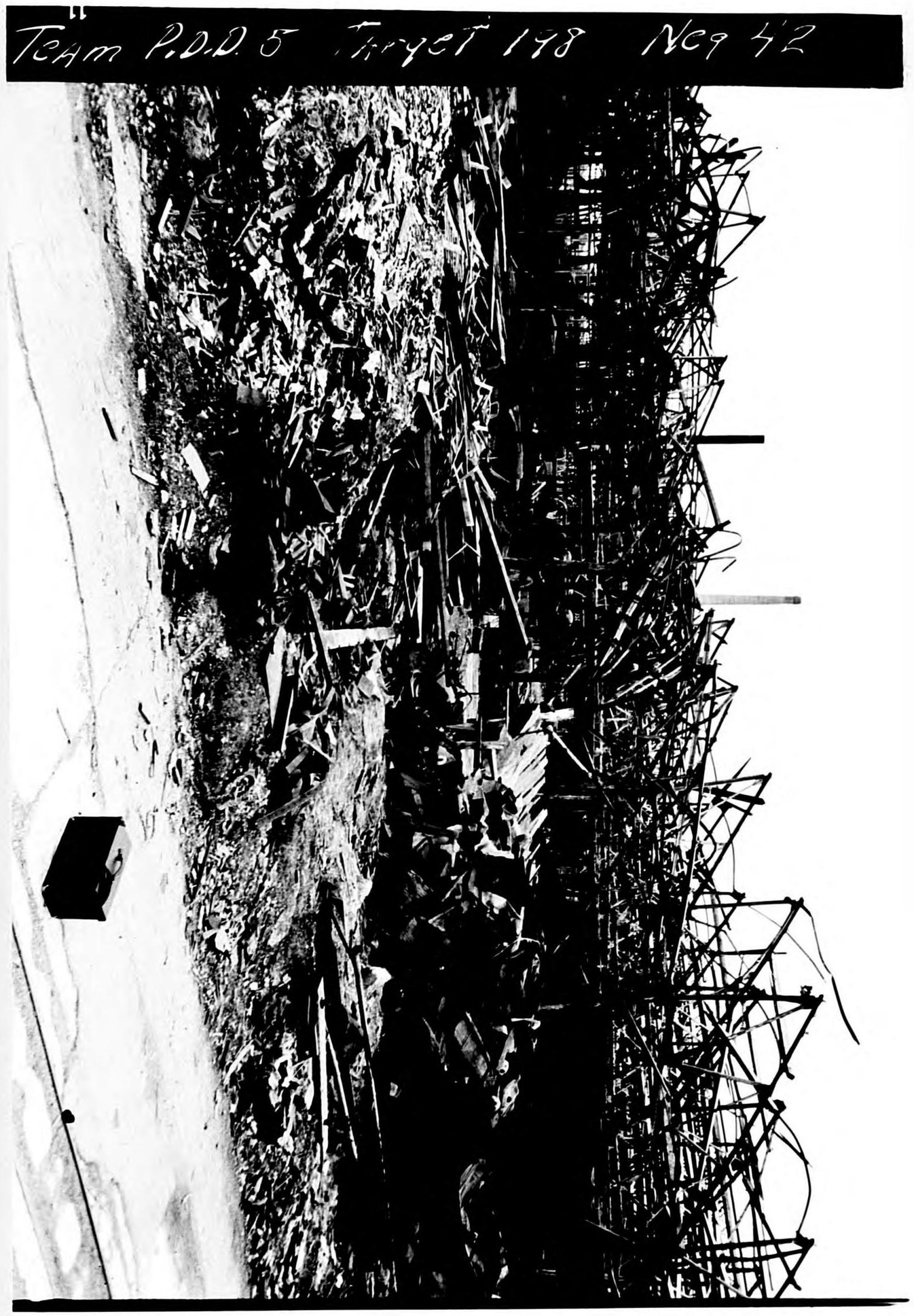
c. THE O.A.S ASSESSMENT MADE A POOR SHOWING, INDICATING PERHAPS LESS CAREFUL WORK.

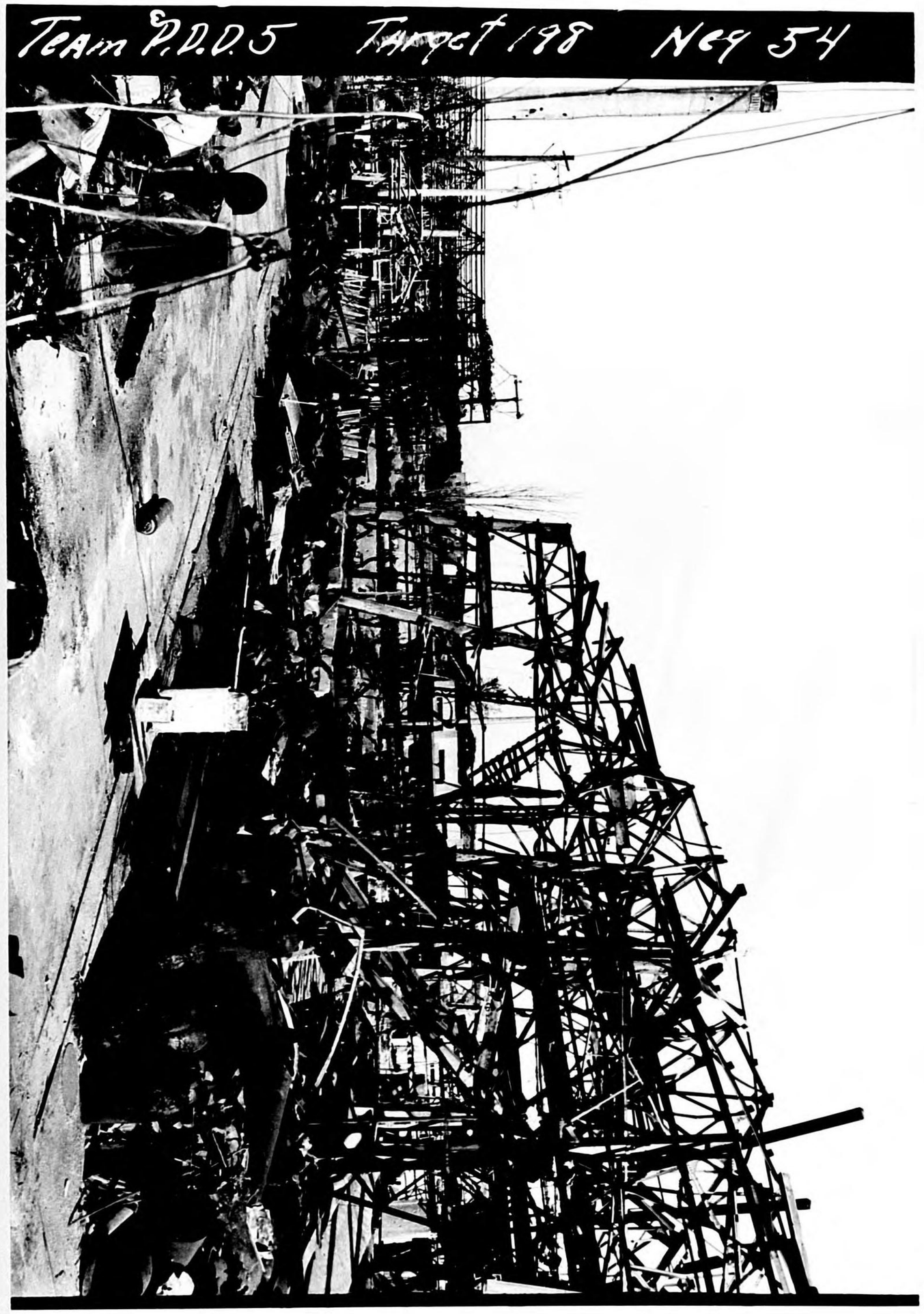
4. ~~EFFECTS OF RAIDS ON PRODUCTION (If available)~~:

5. SOURCES OF INFORMATION: (Both Report and Field Data)

Report written by: _____

Date;_____


Team P.D.D. 5 Target 178 Neg 42


Team P.D.D.5 Target 198 Neg 54

Team P.D.D 5 Target 178 Neg 42

From P.D.D.S. Marshal Islands
Aug 53

Photos for 90.20-198 AICHI ORDNANCE PLANT.

Neg. #5.

Building #27B, reported as combustible but actually fire-resistant. Interpreter may have been ~~misleaded~~ ~~misled~~ confused by frame-like quality of structure.

Neg. #54.

Building #14B, reported by C.I.U. as torpedo testing but actually a narrow-guage service track. Interpreter probably overlooked real torpedo testing (which was partially housed) and, in attempting to confirm ground information, siezed upon this installation as the most likely.

Neg. #42.

Building #2B, reported non-combustible by J.T.G.; note that it has burned to the ground. Close proximity of non-combustible buildings probably ~~lead~~ led to mis-identification.

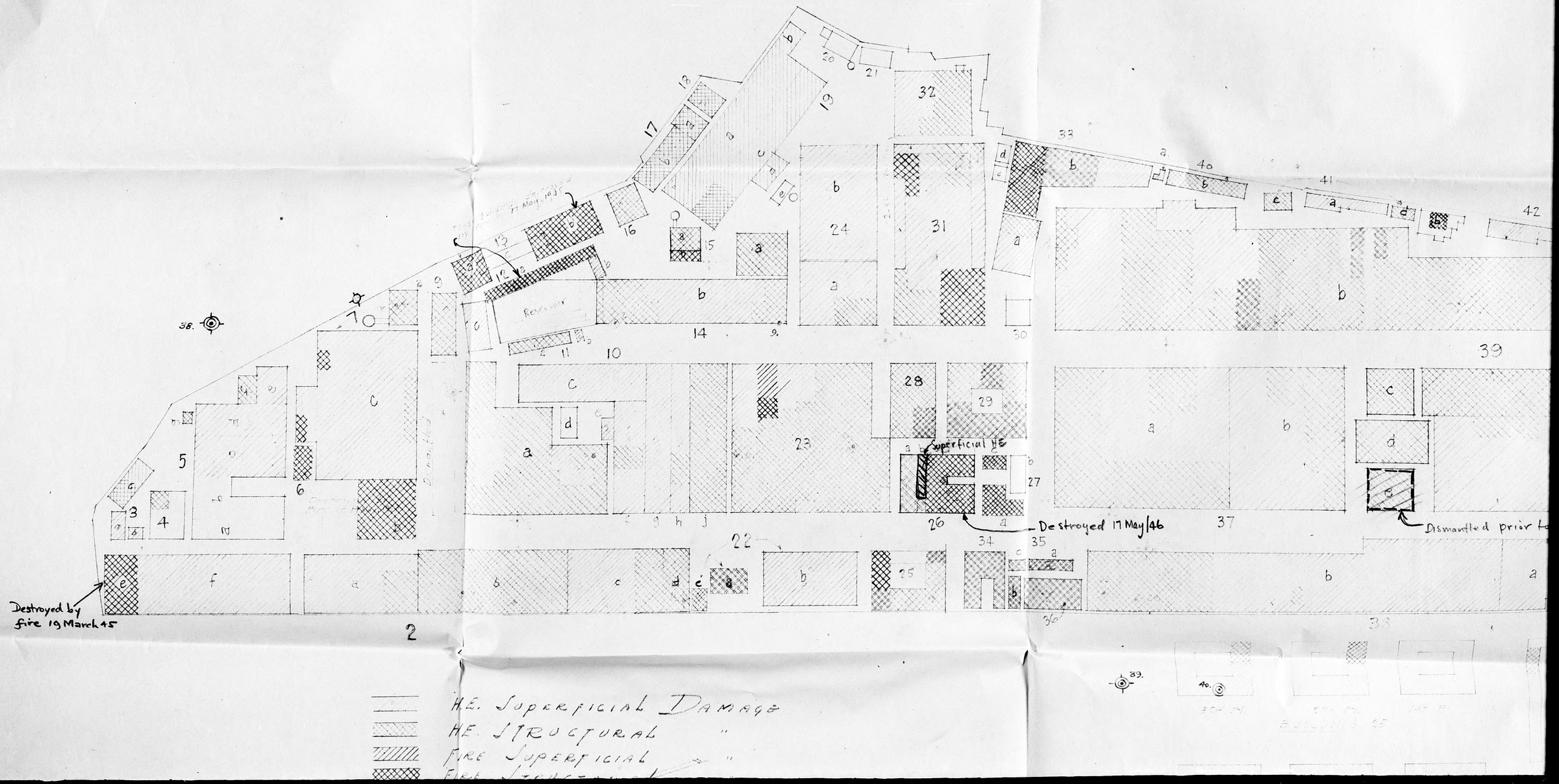
Neg. #33.

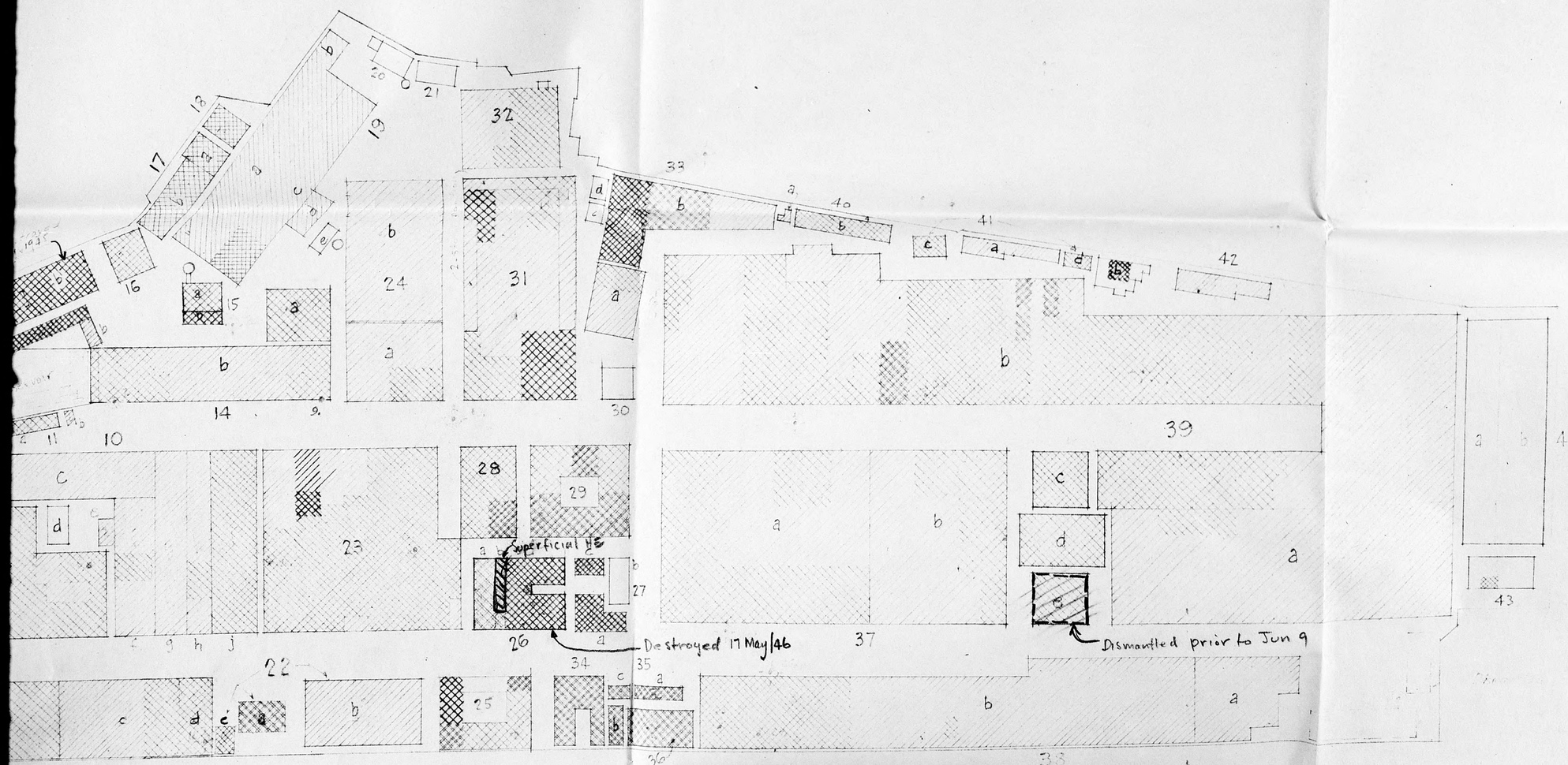
Building #25, reported by J.T.G. as superficially damaged. Structural damage of this type (where roof appears undisturbed from the air) is almost impossible to ~~locate~~ detect

90.20 - 198 - Aichi Ordnance works

A 48, B 84, C + 93, D 70, E 85, F + 93, F/A 62

No worksheets

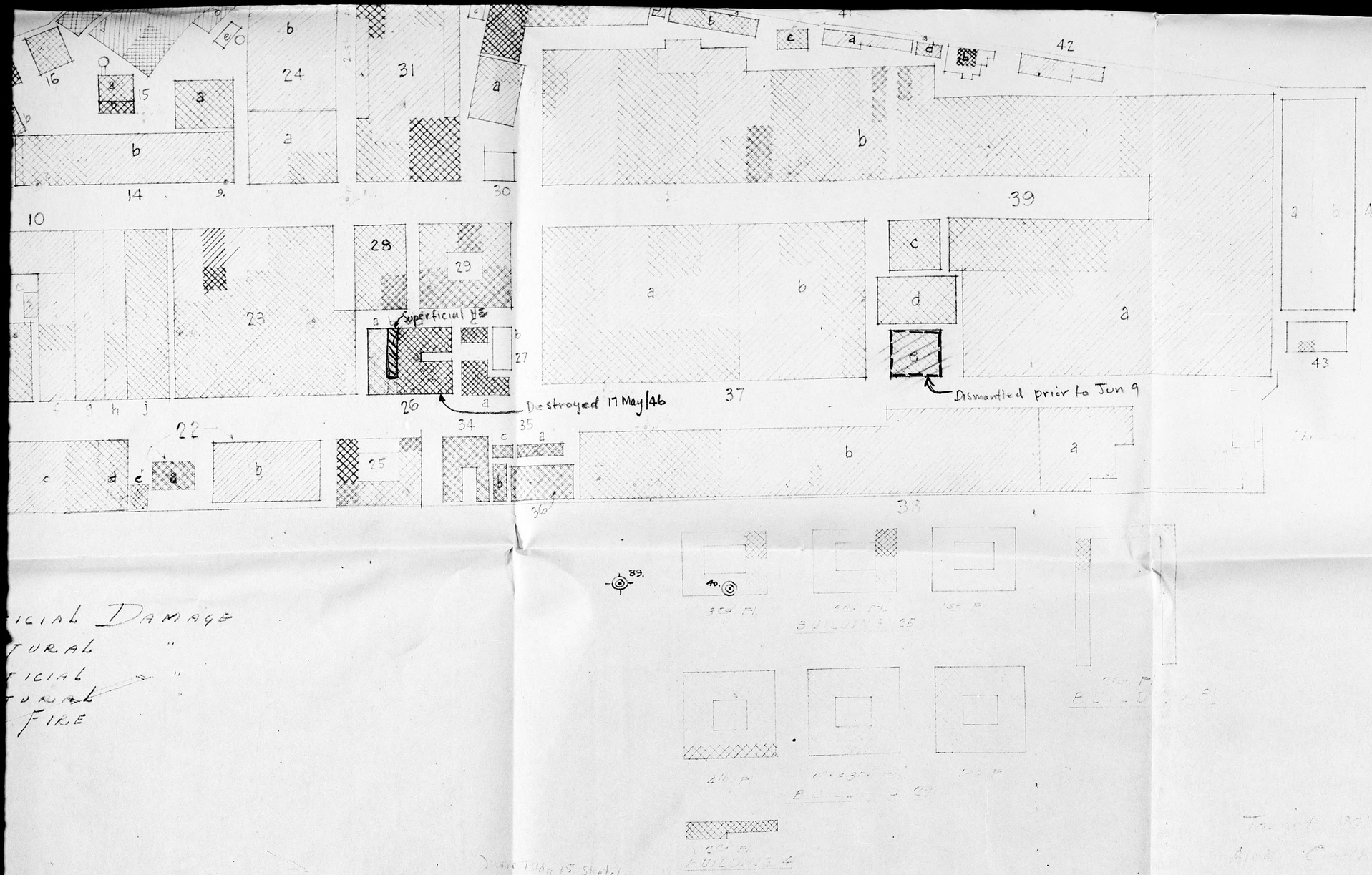

Destroyed by fire 19 March 45
Superficial HE
Destroyed 17 May/46
Dismantled prior to
H.E. SUPERFICIAL DAMAGE
H.E. STRUCTURAL "
FIRE SUPERFICIAL "



PERFICIAL DAMAGE
RUCTURAL "
UPERFICIAL "
TRUCTURAL
FIRE

H.E. SUPERFICIAL DAMAGE
H.E. STRUCTURAL "
FIRE SUPERFICIAL "
FIRE STRUCTURAL "
HE PLUS FIRE

1000
2000
4000



ICIAL DAMAGE
TURAL "
ICIAL "
TURAL
FIRE

1000
2000
4000

AICHI ORDNANCE PLANT

6. 3
14

90.20 - 198

Lat. 35°07'N. - Long. 136°54'E.

NAGOYA, JAPAN

1. DESCRIPTION OF TARGET

a. Aichi Ordnance Plant, Nagoya, was engaged in the manufacture of precision ordnance (torpedoes, mines, and bombs) and in the assembly of airframes.

b. The plant is located 2 1/2 miles south of the center of the city, 4 miles south of Nagoya Castle, and 2 miles north of Nagoya Harbor.

c. The plant comprises 44 buildings which have a total built-up area of approximately 1,152,000 square feet.

2. SUMMARY

a. Two functional analyses were made, one by AC/AS Intelligence which was good, the other by CxIxUx (xxI BxCx) which was poor... . ~~An appreciable error in~~ Both reports ~~is noted~~ ~~in the failure~~ failed to identify the function of the part of the plant engaged in aircraft assembly. Of the 60 buildings and subdivisions checked in the AC/AS Intelligence report there were:

(1) 26 [redacted] identified correctly

(2) 21 [redacted] identified as having similar occupancy

(3) 6 unidentified

(4) 7 ~~[redacted]~~ incorrectly ~~identified~~ ~~interpreted~~ identified

Of the 61 buildings and subdivisions checked in the CxIxUx report, there were:

(1) 10 identified correctly

(2) 49 unidentified

(3) 2 incorrectly identified

b. The structural analysis by AC/AS Intelligence was ~~in general~~ good. In the construction type category, of 106 buildings and subdivisions on which comparable data were available, 77 were correct. In the ~~combustible~~ combustibility category of 144 buildings and subdivisions checked 112 were correct.

c. ~~Three~~ Damage assessment reports were made by AC/AS Intelligence, CIU, and OAS (Operational Analysis Section XXI BC).

(1) AC/AS Intelligence damage assessment checked very closely with the field data as shown in Table ___ *.

TABLE ___

	ACTUAL Sq Ft	REPORTED Sq Ft
~~Total building area~~	~~[illegible]~~	~~[illegible]~~
Structural Damage	528,500	579,900
Superficial Damage	562,700	627,200
Total Damage	1,091,200	1,207,100

(2) CIUO damage assessment was less accurate than that of AC/AS Intelligence and is shown in Table ___ *.

TABLE ___

	ACTUAL Sq Ft	REPORTED Sq Ft
~~Total building area~~	~~[illegible]~~	~~[illegible]~~
Structural Damage	528,500	363,500
Superficial Damage	562,700	767,300
Total Damage	1,091,200	1,130,800

(3) The OxAxSx damage assessment was the least accurate of the three as shown in Table ____.

TABLE ____

	ACTUAL Sq. Ft.	REPORTED Sq. Ft.
~~Total building area~~	~~[illegible]~~	~~[illegible]~~
Structural Damage	528,500	634,000
Superficial Damage	562,700	194,900
Total Damage	1,091,200	828,900

3. SOURCE OF DATA

a. Reported

(1) AC/AS Intelligence F/A Report #222, 16 July 1945

(2) CxIxUx (XXI BxCx) Industrial Report #9, 27 March 1945

(3) AC/AS Intelligence S/A Report #72, 30 July 1945

(4) AC/AS Intelligence Limited D/A Report #59, 20 July 1945

(5) CxIxUx (XXI BxCx) D/A Report #89, 14 June 1945

(6) OxAxSx (XXI BxCx) Report on Mission #193, 30 June 1945

b. Field Data

(1) USSBS Physical Damage Team #5 field notes.

I. [illegible]

A. Site [illegible]

[illegible] Vandenberg AFB [illegible]
[illegible]

[illegible] Vandenberg AFB [illegible]
[illegible]

B. [illegible]

Current group has included 6 small buildings
that north of extreme northern tip of plant area.

C. Building Identification (see F/A Table)

D. Summary of Tabulations

		(AC/AS Intell.) TOTAL BUILDINGS		(C×I×U×) TOTAL BUILDINGS	
		No. Bldgs	%	No. Bldgs	%
Total Plant Capacity	Current	36	43	10	16
	Of Similar Occupancy	21	25	0	—
Total Plant (Gross)	Unoccupied	8	10	44	81
	Inadequate	9	12	2	3
	Total	84	100	61	100

e. ~~REMARKS~~ Remarks:

The analysis by AC/AS Intelligence is good; that of CxUx is poor. A very appreciable error is noted in the failure of both reports to identify the function of the part of the plant engaged in aircraft assembly.

5. STRUCTURAL ANALYSIS

a. CHECK ON SCALE MEASUREMENTS.

(1) Accuracy on linear dimensions varied from

~~91.0 % to 99.8 %~~ 91.0 per cent to 99.8 per cent.

(2) Plan areas were about 93 ~~%~~ per cent correct.

b. S/A (See S/A Table)

c. SUMMARY OF TABULATION

(1) CONSTRUCTION TYPE

TABLE ___

Construction Type	No. Bldgs	No. Corr.	% Corr.
A1.1	33	26	79
A2.3	16	15	94
B1	3	3	100
B2	7	5	71
D	42	24	82
E1	2	2	100
E2	2	1	50
S	1	1	100
Total	106	77	73

(2) COMBUSTIBILITY

TABLE ___

Building Combustibility		No. Bldgs.	No. Corr.	% Corr.
Combustible	(C)	52	33	71
Non-Combustible	(D)	81	70	86
Fire-Resistant	(E)	11	9	82
Total		144	112	78

6. DAMAGE ASSESSMENT

a. D/A (See D/A Table)

b. SUMMARY OF TABULATION

TABLE ____

	ACTUAL		REPORTED (AC/AS Intell)		REPORTED (CxUx)		REPORTED (OxAxSx)	
	Sq Ft	% Dam	Sq Ft	% Dam	Sq Ft	% Dam	Sq Ft	% Dam
Total Building Area	1,152,000		1,231,000		1,188,000		1,165,700	
Damage								
Structural	528,500	46	579,900	47	363,500	31	634,000	55
Superficial	562,700	49	627,200	51	767,300	65	194,900	17
Total Damage	1,091,200	95	1,207,100	98	1,130,800	96	828,900	72

c. REMARKS

(1) The AC/AS Intelligence damage assessment was quite accurate.

(2) The CxUx assessment was somewhat less accurate, probably due to the shorter time available in the field.

(3) The OxAxSx assessment was very poor and indicates either careless work or an ~~[illegible]~~ inexperienced interpreter. ~~interpretation~~

AICHI ORDNANCE WKS. — (90.20-198)

Mfg. Torpedoes, Mines, Fuses, A/c Bombs etc. — NAGOYA

This target studied by PA Team #5.

Complete FA, SA, BDA available through them.

Maj Burnet — Team Cmdr

Photo Evaluation made by Maj. Brown.