

SECRET

D. 468th Group

	K-18	K-20	K-22	Total
No. cameras installed	4	11	5	20
No. in aborting A/C	1	5	1	7
No. completing mission	3	6	4	13
No. photographing targets	1	3	2	6
No. usable negatives	0	13	49	62

D. Totals

	K-18	K-20	K-22	Totals
No. cameras installed	20	50	25	95
No. in aborting A/C	2	10	4	16
No. completing mission	17	38	19	74*
No. photographing targets	13	18	16	47
No. usable negatives	20**	18**	60**	98**

\* Incomplete.

\*\* Limited by unfavorable weather conditions.

Note: For information concerning radar cameras see Radar Information, Annex F.

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By *SM* NARA Date *11/3/05*

S E C R E T

ANNEX

J

BATTLE LOSSES AND BATTLE DAMAGE\*

For details of Battle Damage by aircraft, see Consolidated  
Mission Statistical Summary, Annex M, Table V.

J

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BATTLE LOSSES

MISSION NO. 17

21 November 1944

A. A/C 275 (40th) - Was hit by enemy fighters over the primary target, killing the bombardier and wounding the co-pilot. After being "nursed" on the return route by other aircraft this plane disappeared into the undercast in the vicinity of Liangshan. It crashed about 30 miles from Hsinching out of gas. All crew members except the bombardier parachuted to safety.

B. A/C 204 (444th) - Known to have crash-landed at Ankang after being crippled by enemy action. The plane was reported as a complete loss. One crew member was killed, one wounded and one is missing. The remaining eight were not injured.

C. A/C 321 (444th) - Landed at Ankang with controls damaged due to enemy action, but crashed into a parked aircraft (A/C 290 of the 40th Group) and was destroyed. Four of the crew were killed and 2 were injured.

D. A/C 510 (444th) - Was attacked during bomb run by enemy aircraft which shot out flight instruments, pilot controls, number 4 engine, fuel transfer system, the radio, radar and most of the gun system. This aircraft crash-landed on the beach at Changtsun, 45 miles northwest of Tenghsien. The crew is safe and reported on its way to Chungking by bus.

E. A/C 278 (462nd) - Attacked by 2 Jack type fighters at 20,000 feet at about 210130Z over Omuta, Japan. After the initial attack this aircraft left the formation out of control and went into a spin. Six crews observed aircraft 278 until it went into the undercast, and one crew reported seeing it fall into Omuta Bay. No parachutes were observed.

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By *SM* NARA Date *11/3/05*

S E C R E T

ANNEX

K

FUNCTIONING OF EQUIPMENT

- I - Functioning of Equipment
- II - Performance Data\*

\* Prepared by Operations, Plans and Training Section,  
XX Bomber Command

K

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S E C R E T

I - FUNCTIONING OF EQUIPMENT

Mission No. 17

21 November 1944

A. Summary

	<u>40th</u>	<u>444th</u>	<u>462nd</u>	<u>468th</u>	<u>Total</u>
Total A/C on hand in Group	<u>38</u>	<u>37</u>	<u>37</u>	<u>37</u>	<u>149</u>
Less: A/C undergoing acceptance check	2	1	-	2	5
A/C in depot	1	1	1	-	3
A/C in fwd-area-operational	-	-	1	-	1
A/C in fwd-area-non-operational	1	-	-	-	1
Photo reconnaissance A/C	-	1	1	2	4
A/C undergoing major repairs	<u>4</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>13</u>
A/C airborne - rear area	50	31	31	30	122
Less A/C returning to rear area bases	-	2	1	4	7
A/C landing in forward area	30	29	30	26	115
Plus operational in forward area	-	-	1	-	1
A/C available for mission	50	29	31	26	116
Less A/C failing to take off on mission	2	-	1	4	7
A/C airborne on mission	28	29	30	22	109
Less: A/C failing to bomb PT-mechanical	4	-	10	8	22
A/C failing to bomb PT-other reasons	<u>4</u>	<u>2</u>	<u>10</u>	<u>10</u>	<u>26</u>
A/C bombing Omura	20	27	10	4	61

B. Details by Aircraft

Total combat A/C on hand	149
Less: A/C not becoming airborne - rear area	27
a. A/C undergoing acceptance check - (5):	
(1) 40th: 2	
(2) 444th: 1	
(3) 468th: 2	
b. A/C in depot (3):	
(1) A/C 418 (40th): awaiting parts	
(2) A/C 403 (444th): wing nacelle and fuel cell repairs	
(3) A/C 287 (462nd): fuselage sheet metal repairs	
c. A/C in forward area for mission - (2) (1 operationsl-462nd; 1 non-operational-40th)	
d. A/C undergoing major repairs (13)	
(1) A/C 295 (40th): 50 hour inspection; valve and compression check	
(2) A/C 298 (40th): #1 engine change, left flap change, malfunction in T.O.S.	
(3) A/C 587 (40th): #1 engine trouble	
(4) A/C 831 (40th): #1-2-3-4 engine changes, dome assembly CFC repairs.	
(5) A/C 315 (444th): fuel cell leak	
(6) A/C 324 (444th): engine change	
(7) A/C 340 (444th): waiting slow time	
(8) A/C 299 (462nd): 500 hour inspection	
(9) A/D 347 (462nd): sheet metal repair	
(10) A/C 354 (462nd): sheet metal repair	

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- (11) A/C 469 (468th): #4 engine change
- (12) A/C 417 (468th): 50 hour inspection, change #3 nacelle
- (13) A/C 208 (468th): #1-2-4 engine changes
- e. Photo reconnaissance aircraft (4):
  - (1) A/C 352 (444th)
  - (2) A/C 312 (462nd)
  - (3) A/C 471 (468th)
  - (4) A/C 415 (468th)

A/C airborne - rear area 122  
Less: A/C failing to reach forward area 7

- a. A/C 422 (444th): engine trouble
- b. A/C 235 (444th): engine trouble
- c. A/C 531 (462nd): missing en route to forward area
- d. A/C 389 (468th): oil leak #3 engine
- e. A/C 411 (468th): could not reduce RPM #1 engine, cracked nose housing, #4 engine trouble
- f. A/C 442 (468th): failure #4 electric governor head
- g. A/C 486 (468th): #3 carburetor change, #3 engine running rough

A/C reaching forward area 115  
Plus: A/C in forward area for mission (462nd) 1

A/C available for mission 116  
Less: A/C failing to take off on mission 7

- (a) A/C 348 (40th): fuel sell leak in left wing
- (b) A/C 539 (40th): #3 engine cutting out
- (c) A/C 248 (462nd): gas leak #1 fuel cell
- (d) A/C 397 (468th): carburetor trouble #3 engine
- (e) A/C 395 (468th): blown stack #2 engine
- (f) A/C 487 (468th): electrical trouble and oil leak
- (g) A/C 525 (468th): oil leak #2 engine

A/C airborne on mission 109  
Less: A/C failing to bomb primary target - mechanical reasons 22

- a. Bombed secondary target (1):
  - (1) A/C 5213 (462nd) #3 cowl flap stuck in closed position
- b. Bomber target of last resort (5):
  - (1) A/C 269 (40th): fuel transfer system malfunction
  - (2) A/C 407 (40th): fuel transfer system malfunction
  - (3) A/C 273 (462nd): prop governor #2 engine inoperative
  - (4) A/C 328 (468th): blown blister and oxygen leak
  - (5) A/C 494 (468th): fuel transfer system inoperative
- c. Bombed targets of opportunity (6):
  - (1) A/C 723 (402nd): radar inoperative
  - (2) A/C 209 (402nd): radar inoperative
  - (3) A/C 581 (462nd): radar inoperative
  - (4) A/C 6213 (462nd): prop governor #2 engine inoperative and gas leak
  - (5) A/C 311 (462nd): #1 prop governor stuck at 1900 RPM
  - (6) A/C 203 (468th): oil cooler out #2 engine
- d. Jettisoned bombs (6):
  - (1) A/C 508 (40th): #3 engine feathered
  - (2) A/C 363 (40th): propeller feathered
  - (3) A/C 284 (468th): radar inoperative
  - (4) A/C 353 (468th): missing
  - (5) A/C 390 (468th): left blister blown and instrument difficulties
  - (6) A/C 265 (468th): cylinder blown #1 engine

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- e. Brought bombs back (3):  
(1) A/C 235 (462nd): blown collector ring  
(2) A/C 270 (462nd): #1 oil cooler shutter inoperative in closed position  
(3) A/C 424 (468th): #2 engine failure
- f. Disposition of bombs unknown (1):  
(1) A/C 386 (462nd): radar inoperative
- Less: A/C failing to bomb primary target - other reasons 26
- a. Bombed secondary target (12):  
(1) A/C 303 (40th): personnel error  
(2) A/C 313 (40th): personnel error  
(3) A/C 423 (444th): not in formation due to late take-off  
(4) A/C 456 (462nd): not in formation due to late take-off  
(5) A/C 542 (468th): weather  
(6) A/C 407 (468th): weather  
(7) A/C 546 (468th): weather  
(8) A/C 355 (468th): weather  
(9) A/C 354 (468th): weather  
(10) A/C 356 (468th): weather  
(11) A/C 454 (468th): weather  
(12) A/C 272 (468th): weather
- b. Bombed targets of opportunity (9):  
(1) A/C 331 (40th): weather  
(2) A/C 463 (462nd): personnel error  
(3) A/C 305 (462nd): personnel error  
(4) A/C 506 (462nd): personnel error  
(5) A/C 316 (462nd): personnel error  
(6) A/C 329 (462nd): personnel error  
(7) A/C 362 (462nd): personnel error  
(8) A/C 359 (462nd): personnel error  
(9) A/C 279 (468th): weather
- c. Jettisoned bombs (1):  
(1) A/C 394 (40th): enemy action
- d. Crashed (2):  
(1) A/C 278 (462nd): crashed due to enemy action  
(2) A/C 362 (468th): crashed 1 minute after take-off
- e. Disposition of bombs unknown (2):  
(1) A/C 251 (444th): short on gas, landed at Anhang  
(2) A/C 848 (468th): missing

A/C bombing Omura

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K-I-3

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By *SM* NARA Date *11/3/05*

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HEADQUARTERS  
XX BOMBER COMMAND  
APO 493

Auth: CG XX BC  
Date: 27 Nov 44  
Initials: JPB

CONSOLIDATED  
SPECIALIST MISSION REPORT OF  
STAFF FLIGHT ENGINEER

Date Prepared: 27 November 1944

Field Order No. 17.  
Date of Mission: 21 Nov 44

1. A summary of the aircraft performance is listed in the attached tables.
2. Comparative Group fuel consumptions to the primary target are consistent after making allowances for variations in routes followed. The wide variation between individual aircraft fuel consumption, time to target, over-all flight time and distance traveled in reaching the secondary and last resort targets was the result of the varying distances traveled before turning back to the alternate targets.
3. Comparative bomb loads carried on the last three missions to this primary target.

Ave. Bomb load  
per aircraft - lbs.

F. O. #13	5510
F. O. #16	6365
F. O. #17	7000

Prepared by:  
Staff Flight Engineer

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By SM NARA Date 11/3/05



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SUMMARY OF ALL GROUPS - F. O. #17

Primary Target

Group		Overall Ave.	40th	444th	462nd	468th
*No. of Aircraft		47	15	24	4	4
Total Time		14:18	14:27	14:06	14:58	14:16
Time to Target		5:56	6:01	5:50	6:01	6:08
Fuel Burned	Ave.	6520	6545	6460	6765	6540
	Max.	7200	6800	7200	6800	6900
	Min.	5800	6170	5800	6460	6250
Aux. Fuel Carried	Ave.	1850	1855	1860	1825	1825
	Max.	2000	1900	1900	2000	1900
	Min.	1700	1800	1800	1700	1800
Burnable Reserve	Ave.	745	710	800	585	690
	Max.	1400	1130	1400	900	950
	Min.	100	400	100	300	400
**Air Miles		3395	3325	3450	3380	3325
Ground Miles		3145	3186	3100	3190	3195
**Gals/Air Mile		1.92	1.97	1.87	2.0	1.97
***ave Bomb Alt		22,300	22,000	23,000	21,250	20,500
Starting Gross Wt.	Ave.	132,800	133,200	133,000	132,600	131,900
	Max.	134,400	134,440	134,400	133,070	132,165
	Min.	130,200	131,500	130,200	132,135	131,500
Wt. of Bombs Carried	Ave.	7000	7100	7100	7210	5850
	Max.	7375	7390	7875	7375	5935
	Min.	5210	6300	6300	5210	5820
No. of Bombs	M-64 or M-43	8.5	9.1	9.1	8.75	2.5
	M-76 (PT-NP)	4.9	4.5	4.5	5	9.25

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\*For which logs were available and for aircraft returning to their home base.

\*\*Air miles are of questionable accuracy due to difficulty of determination.

\*\*\*Pressure Altitude

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SUMMARY OF ALL GROUPS - F. O. #17

Secondary Target

Group		Overall Ave.	40th	444th	462nd	468th
*No. of Aircraft		12	1	1	2	8
Total Time		12,47	11,18	9,16	10,45	13,55
Time to Target		7,15	6,50	4,28	4,35	3,23
Fuel Burned	Ave.	5950	5600	4865	5110	6340
	Max.	6750	-	-	5150	6750
	Min.	4865	1-	-	5070	6000
Aux. Fuel Carried.	Ave.	1320	1300	1800	1350	1315
	Max.	1900	-	-	1900	1900
	Min.	1800	-	-	1300	1300
Burnable Reserve	Ave.	1265	1600	2335	2135	870
	Max.	2335	-	-	2150	1200
	Min.	450	-	-	2120	450
**Air Miles		3095	2757	2352	2473	3335
Ground Miles		-	2520	2000	-	3045
**Gals/Air Mile		1.92	2.03	2.07	2.06	1.87
***Ave. Bomb. Alt.		21,100	20,000	23,000	23,500	20,400
Starting Gross Wt.	Ave.	132,300	131,000	132,930	133,570	131,200
	Max.	134,160	-	-	134,160	132,680
	Min.	131,000	-	-	133,000	131,420
Wt. of Bombs Carried	Ave.	6550	6300	6345	7360	6350
	Max.	7390	-	-	7390	7270
	Min.	5450	-	-	7330	5450
No. of Bombs	M-64 or M-43	9.7	8	9	9.5	10
	M-76 (PT-NP)	2.7	4	4	4.5	1.9

K-II-3

\*For which logs were available and for aircraft returning to their home base.  
 \*\*Air miles are of questionable accuracy due to difficulty of determination.  
 \*\*\*Pressure Altitude.

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SUMMARY OF ALL GROUPS - F. O. #17  
 Last Resort Target

Group	Overall Ave.	40th	444th	462nd	468th
*No. of Aircraft	5	2	0	1	2
Total Time	8:57	9:37	9:00	8:05	8:12
Time to Target	-	5:32	-	-	-
Fuel Burned	Ave.	4485	4675	4975	4050
	Max.	5250	5250	-	4100
	Min.	4000	4100	-	4000
Aux. Fuel Carried	Ave.	1840	1850	1800	1850
	Max.	1900	1900	-	1900
	Min.	1800	1800	-	1800
Burnable Reserve	Ave.	2755	2575	2225	3200
	Max.	3300	3100	-	3300
	Min.	2050	2050	-	3100
**Air Miles	2205	2405	-	2300	1960
Ground Miles	2070	2255	-	2010	1910
**Gals/Air Miles	2.04	1.95	-	2.16	2.3
***Ave Bomb Alt.	20,400	20,150	-	20,000	20,750
Starting Gross Wt.	Ave.	132,600	133,430	131,900	132,190
	Max.	133,550	133,550	-	132,230
	Min.	131,900	133,320	-	132,160
Wt of Bombs Carried	Ave.	6740	6845	7875	6060
	Max.	7875	7390	-	6300
	Min.	5820	6300	-	5820
No. of Bombs	M-64 or M-43	5.6	9	10	0
	M-76 (PT-NP)	7.6	4	5	12.5

\*For which logs were available and for aircraft returning to their home base.  
 \*\*Air miles are of questionable accuracy due to difficulty of determination  
 \*\*\*Pressure altitude

K-11-4

S E C R E T

AIRMAX

L

TARGET DAMAGE ASSESSMENT

\* \* \* \* \*  
\* Prepared by: \*  
\* Target Intelligence Unit \*  
\* XX Bomber Command \*  
\* \* \* \* \*

S E C R E T



C O N F I D E N T I A L

HEADQUARTERS  
XX BOMBER COMMAND  
Intelligence Section  
APO 493

DAMAGE ASSESSMENT REPORT NO. 23 (PRELIMINARY)

TARGET: Omura Aircraft Factory, Omura, Kyushu, Japan. (32° 55' N - 129° 56' E).

GENERAL STATEMENT:

This report relates to damage resulting from a daylight attack on the Omura Aircraft Factory on 21 November 1944, XX Bomber Command Mission No. 17. A total of 61 aircraft bombed the target dropping 524 500# GP and 286 500# IB. The target had been attacked twice previously once on 25 October 1944 (see D.A. Report No. 17) and again on 11 November 1944 (see D.A. Report No. 21). Bombing was accomplished through a 10/10 undercast in all cases save one where a visual drop was made and strike photos were obtained. No post-strike reconnaissance has been obtained to this date and assessment of damage is derived exclusively from the one set of strike photos obtained and should be considered provisional.

Approximately midway in the attack a break in the clouds allowed a 6 plane formation to accomplish visual bombing. The one set of strike photos obtained were of good quality and showed the bombs to have fallen among barracks and aircraft revetments just north of the target. The center of the pattern shows to be approximately 1000' long and approximately 1000' left of the Aiming Point, the large undamaged sub-assembly building in the northwest area of the target. Despite the relative proximity of the pattern center to the Aiming Point, no bursts were identified in the target area proper which may be attributed at least in part to the peculiar triangular-shape of the target.

25 Aircraft are known to have bombed the target through the undercast prior to the formation above which obtained the photos. No new damage was identified in the Factory Area as a result of these bombings. A small building in the northern section of the Arsenal is seen to be missing but it is thought that the removal was a result of dismantlement rather than bombing since no craters or evidences of fire were identified.

Several of the large damaged buildings are seen to be under repair.

A group of 12 craters are seen approximately in the center of the airfield. No aircraft were damaged and the field remains usable.

No other items of damage were identified on coverage extending from 1 to 1.5 miles east and southeast of the target and airfield.

A total of 138 aircraft mostly single engine small were present which represents an increase of 8 aircraft from coverage of 17 November. A decided effort at dispersal of parked aircraft is noted as opposed to procedures noted in recent previous coverage.

- REFERENCES: (1) 18th P.I.D. Third Phase Report No. 28  
(2) XX Bomber Command D.A. Report No. 17, 13 October 1944.  
(3) XX Bomber Command D.A. Report No. 21, 21 November 1944.

C O N F I D E N T I A L

C O N F I D E N T I A L

WEIGHT OF ATTACK: 524 500# GP  
286 500# IB

PHOTOGRAPHY: Strike Photos 4MB17, 40-AC579, scale 1:10,000, quality good.

PREVIOUS PHOTO COVER: XX Bomber Command 4MR21, 16 November, scale 1:14,000 quality good to excellent.

ANNEXES: None

DETAILS OF DAMAGE: None.

*Frank L. Scott Jr.*  
FRANK L. SCOTT, JR  
Lt. Col., Air Corps  
Chief, Intelligence Section

PREPARED BY: TARGET UNIT  
INTELLIGENCE SECTION  
30 NOVEMBER 1944

C O N F I D E N T I A L

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Authority *NND 760063*

By *SM* NARA Date *11/3/05*

C O N F I D E N T I A L

HEADQUARTERS  
XX BOMBER COMMAND  
Intelligence Section  
APO 493

DAMAGE ASSESSMENT REPORT NO. 25 (PRELIMINARY)

TARGET: Point Island Storage Area and Environs, Shanghai, China. (31° 16' N  
121° 32' E).

GENERAL STATEMENT:

This report relates to damage resulting from two daylight attacks by 12 and 13 aircraft respectively of XX Bomber Command on 11 November Mission No. 16 and on 21 November, Mission No. 17. On both Missions this was selected as the secondary target of the main strike against the Omura Aircraft Factory, Omura, Kyushu, Japan. A total of 88 500# GP and 50 500# IB were dropped on Mission 16 and 127 500# GP and 36 500# IB on Mission 17. Assessment of damage was derived exclusively from strike photographs and must be considered provisional.

A. Mission No. 16:

Bombing was accomplished entirely by individual aircraft from 102343Z to 110320Z. Strike photos were obtained by 4 aircraft, 1 set approximately midway in the attack and the remaining from the last 3 aircraft over target. Damage identified includes the destruction of 3 barracks-type buildings and heavy damage to 2 others, severe damage to one corner of a large light industrial plant and damage to several small shed-type buildings. The Yu Fong Toyo Cotton Spinning Company may have received damage from a near miss.

B. Mission No. 17:

Bombing was accomplished by 4 individual aircraft and by two formations, one consisting of 5 aircraft and one of 3 aircraft. Assessable strike photos were obtained from the two formations only. The formation of 5 aircraft attacked the warehouse and storage area at the extreme north end of Point Island. Approximately half of the bombs fell just short in the river and the remaining fell on warehouses and the long jetty. The 3 ship formation bombed the Riverside Power Plant reportedly the largest in China, which is located just south of Point Island. At least one and probably 2 direct hits are seen on the plant. The remaining bombs fell to the south of the plant among several small buildings with a hit or very near miss observed on the Dah Kong Cotton Spinning Company.

REFERENCES: 18th P.I.D. Third Phase Report No. 119.

WEIGHT OF ATTACK: Mission No. 16 - 88 X 500# GP, 50 X 500# IB.  
Mission No. 17 - 127 X 500# GP, 36 X 500# IB.

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By *SM* NARA Date *11/3/05*

C O N F I D E N T I A L

PHOTOGRAPHY: Strike photos 4MB16 and 4MB17, 11 November and 21 November,  
quality and scale variable.

PREVIOUS PHOTO COVER: None

ANNEXES: None.

*Frank L. Scott, Jr.*  
FRANK L. SCOTT, JR.  
Lt. Col., Air Corps  
Chief, Intelligence Section

PREPARED BY: TARGET UNIT  
INTELLIGENCE SECTION  
1 DECEMBER 1944

C O N F I D E N T I A L

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Authority *NND 760063*

By *SM* NARA Date *11/30/05*



C O N F I D E N T I A L

HEADQUARTERS  
XX BOMBER COMMAND  
Intelligence Section  
APO 493

DAMAGE ASSESSMENT REPORT NO. 24 (PRELIMINARY)

TARGET: Nanking-Pukow Dock and Storage, China. (32° 02' N - 118° 46' E).

GENERAL STATEMENT:

This report relates to damage resulting from a daylight attack on the Nanking-Pukow area by 5 individual aircraft of the XX Bomber Command on 21 November 1944, Mission No. 17. This was the Last Resort Target of the main strike directed against the Omura Aircraft Factory, Omura, Kyushu, Japan. A total of 28 500# GP and 37 500# IB were dropped. The last aircraft over the target was the only one to obtain strike photos. Since no post-strike photos have been obtained, assessment of damage is derived exclusively from the one set of strike photos and should be considered provisional.

The strike photos are of excellent quality and cover the Yangtze from the mouth of the Kuah Channel to the southern end of Tsaohsienchow Island. All of the east bank of the Yantze is covered but a portion of the Tienstin Terminal is obscured. All identified damage occurred in a warehouse area immediately west of the Nanking Railway Station. Damage inflicted by the previous aircraft over includes the destruction of the central section of 250' X 75' warehouse, severe damage to a 120' X 100' sawtooth roof warehouse and to several small sheds and a rail spur, blast damage to a 150' X 75' warehouse, and damage to an unidentified building. The last aircraft over also attacked the warehouse area scoring at least one and possibly two direct hits on the largest warehouse, a direct hit on a 250' X 75' warehouse, a near miss off the stern of a 150' rivercraft, near misses off several smaller buildings and hits along the dock area.

REFERENCES: (1) 13th P.I.D. Third Phase Report No. 28.  
(2) XX Bomber Command D.A. Report No. 22, 21 November 1944.

WEIGHT OF ATTACK: 28 500# GP  
37 500# IB

PHOTOGRAPHY: Strike photos LMBL7, 40-AC407, scale 1:10,000, quality excellent.

PREVIOUS PHOTO COVER: XX Bomber Command, LMR21, 16 November, scale 1:14,000, quality good to excellent.

EXPOS: None.

DETAILS OF DAMAGE: None.

PREPARED BY: TARGET UNIT  
INTELLIGENCE SECTION  
30 NOVEMBER 1944

*Frank L. Scott Jr*  
FRANK L. SCOTT, JR  
Lt. Col., Air Corps  
Chief, Intelligence Section

C O N F I D E N T I A L

SECRET

ANNEX

M

CONSOLIDATED MISSION STATISTICAL SUMMARY

\* \* \* \* \*  
\* Prepared by: \*  
\* Statistical Section \*  
\* IX Bomber Command \*  
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XX BOMBER COMMAND  
 CONSOLIDATED MISSION STATISTICAL SUMMARY  
 Mission Number Seventeen  
 21 November 1944

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By Authority of the  
Commanding General:

28-11-44 **SR**  
 Date Initials

Table I - Aircraft Participating - Rear to Forward Area

Group	Mission Number	Field Order No.	Combat A/C on Hand In Group	A/C Participating in Mission		A/C Remaining In Fwd Area To Participate In Mission	A/C Airborne In Rear Area For Mission	A/C Arriving in F.A. For Mission						A/C Airborne In Rear Area Failing To Reach Fwd Area	Per-cent	
				Total	% Of Aircraft On Hand That Participated			Total	On D-5	On D-4	On D-3	On D-2	On D-1			On D-Day
40th	17	17	35 Depot 1	30	86%	0	30	30	0	0	0	30	0	0	0	0%
444th	17	17	** 35 Depot 1	31	89%	0	31	29	0	0	0	26	3	2	6%	
462nd	17	17	** 35 Depot 1	32	91%	1	31	30	0	0	0	27	3	1	3%	
468th	17	17	** 33	30	91%	0	30	26	0	0	0	15	11	4	13%	
TOTAL	17	17	* 138 Depot 3	123	89%	1	122	115	0	0	0	98	17	7	6%	

\* Excludes A/C arriving in theater from D-3 to D-Day that did not participate in mission.

\*\* Excludes A/C being used for Reconnaissance Missions:  
 444th - A/C 42-6352,  
 462nd - A/C 42-6312,  
 468th - A/C 42-24471, 42-63415.

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Table II - Aircraft Participating from Forward Area

Group	Total A/C in Fwd. Area for Mission	Total A/C Taking off from Fwd Area on Mission	A/C in Fwd Area Failing to Become Airborne on Mission		Airborne A/C Failing to Bomb Designated Primary Target								Time of First Takeoff	Time * of Latest Return	Aver Time of Flight*	
			Total No.	Percent	Reason						A/C Bombing Primary	Airborne A/C Not Bombing Primary				
					Mech	Pers	Wea.	Not in Form	E/A & Flak	Misc. & Unknown						
40th	30	28	2	6.6%	8	28.6	4	2	1	0	1	0	1839Z	1034Z	14:22	11:01
444th	29	29	0	-	2	6.9%				1		1	1849Z	1040Z	14:00	9:15
462nd	31	30	1	3.2%	20	66.6%	10	7		1	1	1	1837Z	1015Z	14:37	11:33
468th	26	22	4	15.4	18	81.8%	7		9			2	1841Z	0954Z	14:16	10:53
TOTAL	116	109	7	6.0%	48	44.0%	21	9	10	2	2	4	1837Z	1040Z	14:12	11:07

\* Does not include those aircraft missing or landed at other than home field.

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XX BOMBER COMMAND  
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Table III - Bombing Runs

Group	No. of A/C Bombing	Target Bombed	Time of Release		Altitude of Release		Visual Bombing		Radar Bombing		On the Leader	Aircraft Dropping On	
			Earliest	Latest	Highest	Lowest	A/C Sighting For		A/C Sighting For			AFCE	Manual
							R & D	Range	R & D	Range			
40th	20	Omura	0050Z	0136Z	22,500	20,000	1		3		16	4	16
	2	Shanghai	2332Z	0052Z	21,900	20,000	1		1			1	1
	2	Nanking	2242Z	0150Z	20,500	20,000	2		0			2	
	1	Opportunity	0113Z	0113Z	21,000	21,000	1		0				1
444th	27	Omura	0047Z	0136Z	23,500	22,000	0		3		24	4	23
	1	Shanghai	0047Z	0047Z	23,000	23,000	1					1	
462nd	10	Omura	0114Z	0136Z	22,300	20,000	1			2	7	3	7
	2	Shanghai	2329Z	0020Z	27,500	20,000	2					2	
	1	Nanking	2256Z	2256Z	20,000	20,000	0			1		1	
	12	Opportunity	0006Z	0204Z	21,300	20,000	3			1	8	3	9
468th	4	Omura	0104Z	0137Z	23,000	20,000			1		3	1	3
	8	Shanghai	0348Z	0413Z	22,000	18,300	2				6	3	5
	2	Nanking	2128Z	2232Z	21,500	21,000	1		1			2	
	2	Opportunity	2358Z	0148Z	21,000	17,200	2					2	
TOTAL	61	Omura	0047Z	0137Z	23,500	20,000	2		7	2	50	12	49
	13	Shanghai	2329Z	0413Z	27,500	18,300	6		1	0	6	7	6
	5	Nanking	2128Z	0150Z	21,500	20,000	3		1	1	0	5	0
	15	Opportunity	2358Z	0204Z	21,300	17,200	6		0	1	8	5	10

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Table IV - Bomb Loading & Disposal

Group	* Type of Bombs	Fusing		Bomb Loading		On Targets				Bomb Disposal			
		Nose	Tail	Average No. Loaded Per A/C	Tot No. Loaded in A/C Airborne in Fwd Area	Omura	Shanghai	Nanking	Targets Of Opportunity	Unknown	Jettisoned	Returned	Unknown
	500# G P	.1	.01	8.9	249	179	18	18	8		26		
40th	500# Inc	Inst	Inst	4.4	122	88	8	6	4		14		
	500# G P	.1	.01	9.1	265	247	9						9
444th	500# Inc	Inst	Inst	4.4	128	117	4				3		4
	500# G P	.1	.01	8.7	262	88	19	10	103			16	26
462nd	500# Inc	Inst	Inst	4.2	125	44	9	5	49			6	12
	500# G P	.1	.01	7.3	160	10	81		13		37	9	10
468th	500# Inc	Inst	Inst	4.8	105	37	15	24	10		13	4	2
	500# G P	.1	.01	8.6	936	524	127	28	124		63	25	45
TOTAL	500# Inc	Inst	Inst	4.4	480	286	36	37	63		30	10	18

\* 500# GP - AN-M 43)  
 AN-M 64) Actual weight may average over 500 pounds.  
 500# Bomb, Oil - Incendiary AN-M 76 (actual weight approximately 475 pounds)

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Table V - - Aircraft Lost and Damaged

		<u>Aircraft Lost</u>			<u>Explanation</u>
<u>Group</u>	<u>Serial Number</u>	<u>Combat E/A</u>	<u>Missing</u>	<u>Operational Accident</u>	
40th	6275	X			Hit by Fighters over target. "Nursed" on return trip, ran low on gas and crashed about 30 miles from A-1.
	6290		X		Landed at Ankaug to refuel and was destroyed on runway when a P-29 of another group made an emergency landing and crashed into it.
444th	6321	X			Controls damaged by Enemy Action. Crashed into parked aircraft at Ankaug.
462nd	24510	X			Had no instruments left - crash-landed 60 miles N.E. of Laohokow. Some parts being salvaged.
	65204	X			Crash-landed at Ankaug. Crippled due to Enemy Action. Plane complete washout.
462nd	6278	X			Attacked by two E/A. Left formation and went into spin. Fell into Omuta Bay.
	* 24531		X		Abandoned in air on flight to Forward Area due to fire under floor in Radar Compartment.
	93848		X		Unknown. Nothing heard of this A/C since take-off from A-5 at 201848Z.
468th	6358	X			Attacked by E/A over target resulting in one engine disabled and feathered. Aircraft missing.
	6362		X		Crashed one minute after take-off. Reason unknown.

TOTAL

6 1 3

\* A/C lost enroute to Forward Area for Combat Mission.

Aircraft Damaged

Minor Damage

<u>Group</u>	<u>Serial Number</u>	<u>E/A</u>	<u>A/A</u>	<u>Own Guns</u>	<u>Other</u>	<u>Explanation</u>
40th	6276	X				Bullet hole in elevator and fuselage at lower rear turret.
	24579		X			Cowl flap, exhaust collector ring, hole in right horizontal stabilizer.
444th	6353			1		Surface skin of #4 nacelle.
	24462			X		#2 Intercooler one slug through.
	6267			X		Fuselage and wiring.
462nd	24581			3		Vertical stabilizer (expended Cart-ridge cases).
	24463			X		Fuselage, horizontal stabilizer, control cable.
	6336			X		Left blister blown, bullet holes in #2 nacelle and fuselage.
		2			1	

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TABLE V (cont'd)

Aircraft Damaged

Minor Damage (cont'd)

<u>Group</u>	<u>Serial Number</u>	<u>E/A</u>	<u>A/A</u>	<u>Own Guns</u>	<u>Other</u>	<u>Explanation</u>
68th	6407	X				20 MM shell in #1 engine, lower aft turret damaged. Radio Compass Antennae shot off. Prop dome and blade, exhaust stack, harness, crank-case, and ring cowl damaged.
	6279	X				Blew right blister, holes in right wing and tail. #2 nacelle cowl and #3 fuel tank damaged.
	* 6409	X	X			Holes in fuselage, elevator trim tab cable severed. Bomb bay door damaged, Hole in horizontal stabilizer.
		3	1			
<hr/>						
GRAND						
TOTAL		9	2	1		
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Hit by Enemy Aircraft and flak.

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 CONSOLIDATED MISSION STATISTICAL SUMMARY  
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Table VI - Attacks & Passes by Enemy Aircraft

DIRECTION	ALTITUDE															
	HIGH				LOW				LEVEL				TOTAL			
	40th	444th	462nd	468th	40th	444th	462nd	468th	40th	444th	462th	468th	** 40th	444th	* 462nd	468th
0800	2		2	1	3		1	1	1	1	3		6	1	6	2
0900			2	2	1	2	5	3			2	2	1	2	9	7
1000	5		7	3	1				2				8		7	3
1100	4	16	7	10		1	1	1	2	1			6	18	8	11
1200	3	4	7	5		2	10	1	4		2	1	7	6	19	7
0100	1		5	3	2		2	1		1	2		3	1	9	4
0200	2	1	8	3	4	6	5	3	4	1	1	2	10	8	14	8
0300		5	4	2	3		4	4	2		2	3	5	5	10	9
0400	1		3	1	2		2	1	3				6		5	2
0500			2	3	1	2	4		2	2	1	4	3	4	7	7
0600			4	1		2	11		1		4	4	1	2	19	5
0700				3	2	1	5		4	1	2	2	6	2	7	5
TOTAL	18	26	51	37	19	16	50	15	25	7	19	18	62	49	120	70

\* Excludes two (2) Unknown 462nd Group.  
 \*\* Excludes one (1) Miscellaneous 40th Group.

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Table VII - Personnel Losses

Crew Position	Killed				Missing				Seriously Injured				Slightly Injured				Total Casualties				Total Participating				
	40	444	462	468	40	444	462	468	40	444	462	468	40	444	462	468	40	444	462	468	40	444	462	468	
Pilot		1		1			2	1										1	2	2	28	29	30	23	
Co-Pilot		1		1			2	1	1					1				1	1	3	2	28	29	30	22
Navigator		1		1			2	1										1	2	2	28	29	30	22	
Bombardier	1			1			2	1		1	1							1	1	3	2	28	29	30	22
Flt Eng		1		1			2	1										1	2	2	28	29	30	22	
Radar				1			2	1											2	2	2	28	29	30	22
Radio				1			2	1		1								1	2	2	28	29	30	22	
CFC Spec.				1			2	1		1								1	2	2	28	29	30	22	
Right Gnr				1			2	1											2	2	2	28	29	30	22
Left Gnr		1		1		1	2	2										2	2	3	28	29	30	22	
Tail Gnr							2	1				1							2	2	2	28	29	30	22
RCM																					1				
Others																			1		1	4	6	6	2
TOTAL	1	5		10		1	22	12	1	3	1	1					2	9	25	23	313	325	336	245	

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Table VIII - Expenditures of Ammunition and Claims Against Enemy Aircraft

Group	Ammunition Expended Per Plane In Combat Flying					Total Expended	Claims Against Enemy Aircraft					
	Upper Front	Lower Front	Upper Rear	Lower Rear	50 Cal. Tail		Destroyed	Probably Destroyed	Damaged	Per 1000 Rounds Expended In Combat		
										Destroyed	Probably Destroyed	Damaged
40th	109	92	96	90	87	12,330	11	1	7	.89	.08	.57
444th	56	73	52	77	59	7,940	4	3	3	.50	.38	.38
462nd	180	158	142	205	215	23,380	6	9	7	.26	.39	.30
468th	84	94	73	130	110	9,795	6	6	7	.61	.61	.72
TOTAL	109	105	92	126	119	53,445	27	19	24	.51	.36	.45

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Table IX - Gasoline Loading and Consumption

Group	Average Gross Wt. Per Plane		Average Gallons Loaded Per Plane		Average Gallons Consumed Per A/C Rear to Fwd Area	Aver Gals Consumed On Mission		Aver Gals Remaining in A/C After Mission		Gallons Take From Forward Area Stocks			Fwd to Rear Area Average Gallons		
	Before R.A. Take-Off	Before F.A. Take-Off For Mission	Before R.A. Take-Off	Before F.A. Take-Off For Mission		Per A/C Bombing Primary	Per Airborne A/C Not Bombing Primary	Per A/C Bombing Primary	Per Airborne A/C Not Bombing Primary	Total	Per A/C Bombing Primary	Per Airborne A/C Not Bombing Primary	Loaded For Return to R.A.	Consumed on Return to R.A.	Remaining After Return to R.A.
40th	133,332	132,921	7,173	7,265	3,189	6,493	5,131	789	2,100	156,132	5909	4547	3400	2571	829
444th	133,880	132,980	7,252	7,260	3,246	6,484	4,865	779	2,335	170,355	6072	4453	3594	2629	965
462nd	133,072	132,815	7,288	7,266	3,176	6,893	5,708	388	1,551	157,236	6147	4962	3366	2642	724
468th	133,207	132,150	7,208	7,270	3,102	6,535	5,384	690	1,897	107,750	6039	4888	3610	2576	1034
TOTAL	133,371	132,735	7,232	7,265	3,179	6,569	5,468	699	1,793	591,473	6010	4899	3484	2605	879

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Table X--Aircraft Failing to Bomb Primary Target

Reconciliation Summary

Group	Total Combat A/C on Hand	A/C Bombing Primary	Photo L/C	Accept- ance Check	A/C Failing to Bomb Primary	
					Which Were In Depot or Sv. Group	Which Were On Hand In Group
40th	38	20	0	2	1	15
444th	37	27	1	1	1	7
462nd	37	10	1		1	25
468th	37	4	2	2		29
TOTAL	149	61	4	5	3	76

AIRCRAFT FAILING TO BOMB PRIMARY TARGET ON MISSION #17

A/C Serial No.	Rear Area		Fwd. Area		Reason for Failure to Bomb Primary
	Air- borne	Not Air- borne	Air- borne	Not Air- borne	

40th B.G.

6295		X			50-hours inspection: Valve & Compression check.
6298		X			#1 Engine change; Lt Flap change; Modification in T.O.'s.
6418		X			By Gp Repair and Maintenance.
24587		X			#1 Engine trouble.
93831		X			#1-2-3-4 Eng change, Dome Assy CFC
6348				X	Fuel cell leak in Left Wing.
24589				X	#3 Engine cutting out.
6269			X		Fuel transfer system trouble.
24508			X		#3 Engine feathered.
63363			X		Had to feather an engine.
6303			X		Personnel error.
6313			X		Personnel error.
63407			X		Fuel transfer system trouble.
6344				*	Mechanical.
6331			X		Weather.
63394			X		Enemy Action.
TOTALS		5	8	3	

444th B.G.

6315		X			Fuel cell leak.
6324		X			Engine change.
6340		X			Waiting slow time.
63403		X			22nd A.D. Wing nacelle and fuel cell repairs.

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A/C Serial No.	Rear Area		Fwd. Area		Reason for Failing to Bomb Primary
	Air- borne	Not Air- borne	Air- borne	Not Air- borne	

444th B.G. - Cont'd

63422	X				Engine change.
6423			X		Late take-off and not in formation.
6225	X				Engine trouble.
6251			X		Unknown short on gas landed at Anhang.
<b>TOTALS</b>	2	4	2		

462nd B.G.

6287		X			22nd A.D. Sheet metal repairs.
6299		X			500 hour inspection.
6347		X			Sheet metal repair.
6354		X			Sheet metal repair.
24531	X				Missing enroute to Forward Area.
6248			X		Gas leak in #1 Fuel cell.
24506			X		Personnel error.
24456			X		Took off late. Unable to make formation.
6316			X		Personnel error.
6329			X		Personnel error.
24728			X		Radar inoperative.
24463			X		Personnel error.
24505			X		Personnel error.
6273			X		Prop governor #2 engine.
6213			X		Prop governor #2 engine and gas leak.
6209			X		Radar inoperative.
6285			X		Blown collector ring.
65213			X		#3 cowl flap stuck in closed position.
24581			X		Radar out.
93848			X		Unknown (Missing).
63386			X		Radar out.
63362			X		Personnel error.
6311			X		#1 prop governor stuck at 1900 RPM.
6278			X		Enemy action (Missing).
6270			X		#1 oil cooler shutter inoperative in closed position.
6359			X		Personnel error.
<b>TOTALS</b>	1	4	20	1	

468th B.G.

6389	X				Oil leak #3 engine.
6411	X				Could not reduce RPM #1 engine. Cracked nose housing; #4 engine change.
24442	X				Failure of #4 electric governor head.
24469		X			#4 engine change.
24486	X				#3 Carburetor change; #3 running rough (engine).
63417		X			Changing #3 nacelle, 50-hour inspection.
65208		X			#1-2-4 engine changes.
6397			X		Carburetor trouble #3 engine.
63395			X		Blown, stack #2.
24487			X		Electrical trouble & oil leak.
6265			X		Cylinder blown #1 engine.
6208			X		Oil cooler out #2 engine.
63424			X		Engine failure #2 engine.
6390			X		Left blister blown and instrument trouble.
6279			X		Weather.
6362			X		Crashed one minute after take-off.
24546			X		Weather.

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A/C Serial No.	Rear Area		Fwd. Area		Reason for Failing to Bomb Primary
	Air- borne	Not Air- borne	Air- borne	Not Air- borne	

468th B.G. - cont'd

63354			X		Weather.
63355			X		Weather.
63356			X		Weather.
6454			X		Weather.
24525				X	Oil leak #2 engine.
6272			X		Weather.
6284			X		Radar out.
6358			X		Unknown (Missing).
6407			X		Weather.
24542			X		Weather.
93828			X		Blown blister and oxygen leak.
24494			X		Fuel transfer system inoperative.
TOTALS	4	3	18	4	
GRAND TOTALS	7	16	48	8	

\* Aircraft not scheduled to participate in mission.

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IX BOMBER COMMAND  
CONSOLIDATED MISSION STATISTICAL SUMMARY  
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Table XI - Engineering Malfunctions

Part I - Engineering Malfunctions Preventing Airborne A/C From Bombing Primary

		40th	444th	462nd	468th	Total
POWER PLANT & ACCESSORY SECTION	Eng Running rough				1	1
	Exhaust system			1		1
	Cowl flaps			1		1
PROPELLERS & GOVERNORS	Feathered Props	2				2
	Governor			3		3
FUEL SYSTEM	Fuel Trans System	2			1	3
	Fuel Booster Pumps			1		1
MISCELLANEOUS	Blown Plister				2	2
	Oxygen leak				1	1
OIL SYSTEM	Oil Temperature Regulator			1	1	2
TOTALS		4		7	6	17

NOTE: For details, see Table X - "Summary of A/C Failing to Bomb Primary".

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Part II - Engineering Malfunctions Not Preventing A/C From Bombing Primary

		40th	444th	462nd	468th	Total
ENGINE PLANT & ACCESSORY SECTION	Engine running rough	3	1	2	4	10
	Exhaust system				1	1
	Turbo Supercharger		2			2
	Cowl flaps switch			1		1
	Cowl flaps			1		1
	Excessive oil consumption				1	1
PROPELLERS & GOVERNORS	Feathered Props	1	1			2
	Unsuccessful attempts to Feather	1			1	2
	Governor	1	3	7	1	12
	Governor oil leak	1	2			3
OIL SYSTEM	Oil leaks	1	10	1	4	16
	Oil Temperature Regulator	1	1		1	3
	Oil pressure low				1	1
	Oil Pressure transmitter		1			1
FUEL SYSTEM	Fuel Transfer System	3	2		2	7
	Fuel Pressure low		1	1		2
	Fuel liquidometer				1	1
	Fuel booster rheostat				1	1
ELECTRICAL SYSTEM	Defroster fan	1				1
	Generators	1	3	1	2	7
	Landing lights			1		1
	Magneto		3	1		4
	Inverter		2	1		3
	Wing flap switch		1			1
INSTRUMENTS	Carburetor air temperature Gage	1				1
	Cylinder head temperature gage	3	1	1	1	6
	Rear oil press gage		1		1	2
	Oil temperature gage				1	1
	Fuel press gage	1	1	1		3
	Tachometer	4	2	2	4	12
	Flux gate compass	3	1		1	5
	Radio compass		1	1	1	3
	Turn & Bank Indicator			1		1
	Flight Indicator	2		1		3
	A.F.C.E.			1		1
MISCELLANEOUS	Vacuum system			1	1	2
	Cracked blister	1	1		1	3
	Pressurization			1		1
	Hydraulic system	1	1		1	3
	Structural			1		1
	Prop Pitch Control Switch				1	1
	Flown Blister	1	2	3	3	9
	Tail Skid retraction		1			1
	Flight controls		1			1
	Oxygen leak		1		1	2
	Cabin heat		1			1
TOTALS		31	48	31	37	147

NOTE PERTAINING TO BOTH PART I AND PART II:

Only engineering malfunctions are listed. All other malfunctions, such as radar, are excluded. If one aircraft had more than one engineering malfunction all malfunctions have been listed.

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Authority NND 760063

By SM NARA Date 11/3/05

S E C R E T

ANNEX

N

FIELD ORDERS

\* \* \* \* \*  
\* All Field Orders Material in the following \*  
\* Annex originally classified TOP SECRET, is \*  
\* hereby reclassified to SECRET \*  
\* By authority of the C. G., EA Bomber Command \*  
\* 21 Nov 1944 FLS \*  
\* Date Initials \*  
\* \* \* \* \*

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N

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Auth: CG, XX BC

Initials:       

Date: 19 Nov 44

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XX Bomber Command

APO 493

19 November 1944 - 1800 Z

FIELD ORDERS )

NUMBER 17 )

MAPS: AAF Aeronautical Charts, 1:1,000,000: 385, 386, 387, 388, 491, 492  
493, 494, 495.

(or) International Maps of the World, 1:1,000,000: CHUNGKING, CHANGSHA  
HANKOW, NANKING, NANTUNG, SHANGHAI, NAGASAKI,  
KAGOSIMA, OSAKA.

AAF Aeronautical Charts, 1:500,000: 386C, 386D, 388D, 492A, 493B.

AAF Long Range Air Navigation Charts, 1:3,000,000: 17.

Naval Aviation Charts, V-30 Series, 1:2,188,800: 16, 17.

Naval Aviation Chart, HO:5494.

1. a. (1) Hostile Ground Situation: See Annex No. 1, Intelligence Summary.
- (2) Hostile Air Situation: See Annex 1, Intelligence Summary.
- b. (1) Omitted.
- (2) Friendly Air Situation:
  - (a) Friendly Airfields: See Annex No. 1, Intelligence Summary.
  - (b) The 312th Fighter Wing will provide fighter cover for VLR bases in the CHENG TU Area.

Staging from bases in the CHENG TU Area, the XX Bomber Command conducts a maximum effort daylight attack on D-Day against AAF Target No. 90.36-1627. See Annex No. 1, Intelligence Summary and Annex No. 2, Radar Folder.

ROUTE OUT: Designated below.

Aircraft will climb on course to 7,000 feet pressure altitude, cruise for thirty minutes and then climb on course to 13,000 feet pressure altitude.

BASE ALTITUDE: 13,000 feet pressure altitude.

- 1 -

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IP: OIJIMA ISLAND (32°34'N, 128°24'E).

AXIS OF ATTACK: 73° Mag.

METHOD OF BOMBING: Twelve-plane formation.

ROUTE BACK: TARGET - South tip of HUNGZE LAKE (33°12'N, 118°42'E) - LIANG-SHAN AIRFIELD (30°42'N, 107°50'E) - BASE AREA.

3. a. The 40th Bombardment Group, will dispatch its aircraft at two minute intervals from its forward base beginning at 1839Z on D minus one, will bomb from 22,000 feet pressure altitude.

ROUTE OUT: BASE AREA - ANKING AIRFIELD (32°35'N, 109°14'E) - ASSEMBLY POINT #1 (33°12'N, 118°42'E) - ASSEMBLY POINT #2 (32°02'N, 128°25'E) - IP - TARGET

ASSEMBLY ALTITUDES: ASSEMBLY POINT #1: Base altitude plus or minus an odd thousand feet; ASSEMBLY POINT #2: 22,000 feet pressure altitude

TIMING POINT: Reference AF Target Illustration No. 90.36 - 1627 P44, issued September 1944 Southeast corner of building No. 19 in Area A.

BOMB LOAD:

- (1) Minimum of ten bombs per aircraft equipped with center section wing tanks.
  - (2) Minimum of eight bombs per aircraft not equipped with center section wing tanks.
  - (3) Both 500# GP (TNT or Amatol filled) bombs, fused .1 second nose and .01 second tail, and 500# M-76 Incendiary bombs, fused instantaneous nose and non-delay tail, will be carried in each aircraft, mixed in the ratio of two demos to one incendiary with the incendiaries loaded to release last.
- b. The 444th Bombardment Group will dispatch its aircraft at two minute intervals from its forward base beginning at 1849Z on D minus one, will bomb from 23,000 feet pressure altitude.

ROUTE OUT: BASE AREA - ANKING AIRFIELD (32°35'N, 109°14'E) - ASSEMBLY POINT #1 (33°12'N, 118°42'E) - ASSEMBLY POINT #2 (32°02'N, 128°25'E) - IP - TARGET.

ASSEMBLY ALTITUDES: ASSEMBLY POINT #1: Base altitude plus or minus even thousand feet. ASSEMBLY POINT #2: 23,000 feet pressure altitude.

- 2 -

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AIMING POINT: Reference AAF Target Illustration No. 90.36 - 1627 P4.  
Issued September 1944 Building No. 4 in Area D.

BOMB LOAD:

- (1) Minimum of eleven bombs per aircraft equipped with center section wing tanks.
- (2) Minimum of eight bombs per aircraft not equipped with center section wing tanks.
- (3) Both 500# GP (TNT or Amatol filled) bombs, fused .1 second nose and .01 second tail, and 500# M-76 Incendiary bombs, fused instantaneous nose and non-delay tail, will be carried in each aircraft, mixed in the ratio of two demos to one incendiary with the incendiaries loaded to release last.

- d. The 462nd Bombardment Group, will dispatch its aircraft at two minute intervals from its forward base beginning at 1837Z on D minus one, will bomb from 20,000 feet pressure altitude.

ROUTE OUT: BASE AREA - ANKANG AIRFIELD (32°35'N, 109°14'E) - ASSEMBLY POINT #1 (33°53'N, 120°30'E) - ASSEMBLY POINT #2 (32°02'N, 128°25'E) - IP - TARGET.

ASSEMBLY ALTITUDE: ASSEMBLY POINT #1: Base altitude plus or minus an odd thousand feet, ASSEMBLY POINT #2: 20,000 feet pressure altitude.

AIMING POINT: Reference AAF Target Illustration No. 90.36 - 1627 P4.  
Issued September 1944 Southeast corner of Building No. 19 in Area A.

BOMB LOAD:

- (1) Minimum of nine bombs per aircraft equipped with center section wing tanks.
- (2) Minimum of eight bombs per aircraft not equipped with center section wing tanks.
- (3) Both 500# GP (TNT or Amatol filled) bombs, fused .1 second nose and .01 second tail and 500# M-76 incendiary bombs, fused instantaneous nose and non-delay tail, will be carried in each aircraft, mixed in the ratio of two demos to one incendiary with the incendiaries loaded to release last.

- e. The 468th Bombardment Group, will dispatch its aircraft at two minute intervals from its forward base beginning at 1840Z on D minus one Day, will bomb from 21,000 feet pressure altitude.

- 3 -

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By *SM* NARA Date *11/3/05*

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ROUTE OUT: BASE AREA - ANKANG AIRFIELD (32°35'N, 109°14'E) - ASSEMBLY POINT #1 (33°53'N, 120°30'E) - ASSEMBLY POINT #2 (32°02'N, 128°25'E) - IP - TARGET.

ASSEMBLY ALTITUDES: ASSEMBLY POINT #1: Base altitude plus or minus an even thousand feet, ASSEMBLY POINT #2: 21,000 feet pressure altitude.

AIMING POINT: Reference AAF Target Illustration No. 90.36-1627 P4A issued September 1944 Building No. 4 in Area D.

BOMB LOAD:

- (1) Minimum of ten bombs per aircraft equipped with center section wing tanks.
- (2) Minimum of eight bombs per aircraft not equipped with center section wing tanks.
- (3) Both 500# GP (TNT or Amatol filled) bombs, fused .1 second nose and .01 second tail, and 500# M-76 Incendiary Bombs fused instantaneous nose and non-delay tail, will be carried in each aircraft, mixed in the ratio of two demos to one incendiary with the incendiaries loaded to release last.
- (1) SECONDARY TARGETS: AAF Target No. 83.1-117. Kiangnan Dock and Engineering Works. AIMING POINT - Center of cluster of buildings east of drydocks. See Annex No. 1, Intelligence Summary and Annex No. 2, Radar Folder.
- (2) LAST RESORT TARGET: AAF Target No. 83.1-129 (Dock Area). AIMING POINT - Center of large saw tooth building north of military depot on East bank of Yangtze River. See Annex No. 1, Intelligence Summary, and Annex No. 2, Radar Folder.
- (3) Aircraft will move to the forward area on D minus two and continue on D minus one.
- (4) Radar and K-18 photographs of the CHINA COAST and potential assembly points will be taken by all aircraft equipped with cameras.
- (5) Guns will not be test fired at night.
- (6) After landing at CHINGTU on completion of the mission, airplanes will be re-serviced immediately to a total of 3200 gallons of burnable gasoline, necessary engine oil and necessary oxygen. Normal return to the INDIA bases will be made on D plus one.

No change.

- a. (1) Signal Communications: See Annex No. 3, Signal Instructions.
- (2) RCM: See Annex No. 4, RCM Instructions.
- b. Command Post: Forward Echelon Detachment, Headquarters, XX Bomber Command, APO 493.

By command of MAJOR GENERAL LEMAY:

- 4 -  
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By *SM* NARA Date *11/3/05*

SECRET

JOHN E. UPSTON  
Brigadier General, U. S. A.  
Chief of Staff

OFFICIAL:

*Joseph J. Preston*  
JOSEPH J. PRESTON  
Colonel, Air Corps  
Deputy Chief of Staff,  
Operations

ANNEXES:

- #1 - Intelligence Summary
- #2 - Radar Folder
- #3 - Signal Instructions
- #4 - RCM Instructions

DISTRIBUTION:

- 1 - CG, Twentieth Air Force
- 1 - CG, China Theatre
- 1 - CG, India-Burma Theatre
- 1 - CG, IAF, IB (less Annex No. 1)
- 1 - CG, IAF, I Evaluation Board
- 1 - CG, Fourteenth Air Force
- 1 - CG, 312th Wing (F)
- 1 - CG, XXI BC
- 1 - D/CS, Operations
- 1 - CO, Fwd. Ech. Det. XX BC
- 1 - CO, Fwd. Ech. Det. XX BC (ACC) (less Annexes 1, 2, 4)
- 2 - Chief, Intelligence Section
- 2 - Chief, Opns, Plans & Tng Section
- 3 - CO, 40th Bomb Group
- 3 - CO, 444th Bomb Group
- 3 - CO, 462nd Bomb Group
- 3 - CO, 468th Bomb Group

- 5 -

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Authority *NND 760063*

By *SM* NARA Date *11/3/05*

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\*\*\*\*\*  
\* SECRET \*  
\* By Auth of the C.G. \*  
\* XV. Bomber Command \*  
\* 19 Nov 44 \*  
\* Date Initials \*  
\*\*\*\*\*

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ON COMBAT MISSIONS

ANNEX NO. 1 TO FIELD ORDERS NO. 17 XX BOMBER COMMAND

INTELLIGENCE SUMMARY

1. Operational Intelligence

SECTION I: ENEMY GROUND SITUATION;

For exact location of the Battle Line, see Exhibit A, "Navigator's Aid Chart", dated 19 November, 1944, and refer to "Radiogram Extract Report" of 15 November, 1944, disseminated by this Headquarters.

SECTION II: ENEMY ORDER OF BATTLE - SEA;

Japanese fleet units are known to be operating in the Yellow Sea and in the waters immediately surrounding the homeland. If information relative to the disposition of any major fleet units in areas of concern to this mission is received by this Headquarters, such data will be disseminated by Secret Radio prior to the final mission briefing.

SECTION III: ENEMY ORDER OF BATTLE - AIR;

1. The estimated Japanese Air Order of Battle (fighters) for China, and the Kyushu area of Japan is shown in the following table:

<u>LOCATION</u>	<u>ESTIMATED NO. OF FIGHTERS</u>
Hankow - Wuchang Sector	175
Shanghai - Nanking Sector	25/30
Kyushu Area	300
Total	500/505

2. Enroute over Central China enemy interception is estimated as none to weak, since enemy fighters based in the Hankow - Wuchang sector have been committed primarily to assignments in the South of China.

3. In the Shanghai-Nanking area, some Army and Navy training units are known to exist, but are believed capable of no more than weak interception.

4. Enemy capabilities for interception over the Omura area remain unchanged from Mission No. 16 when it was estimated that no more than 100 fighters could feasibly be utilized against XX Bomber Command formations. Enemy interception in the target area is again estimated as moderate.

SECTION IV: ENEMY AIRCRAFT;

For new types of enemy aircraft which might be encountered, see "Technical Air Intelligence Center Summary #5", dated September 1944.

SECTION V: ENEMY TACTICS;

Mission No. 16 showed a marked increase in coordinated attacks by Japanese fighters, from two to six aircraft being employed in each attack. This trend will probably continue. Japanese aggressiveness, as shown by the degree to which attacks were pressed home, was also increased from past missions.



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SECTION VI: ENEMY AIRFIELDS:

1. For the latest information on enemy airfields in China, see "Enemy Airfield Report No. 4", dated 2 November 1944, published by this Headquarters.

2. For the latest information on enemy airfields in Japan, see the "Provisional Airfield List - Japan, Enemy Airfield Report No. 1", dated 12 July 1944, published by Washington, and second edition of same report, dated 19 October 1944.

SECTION VII: ENEMY ANTI-AIRCRAFT:

For radar warning nets and Flak information refer to "Flak Intelligence Bulletin No. J-2", dated 8 November 1944, and "Enemy Anti-aircraft Defense Bulletin No. 6", dated 1 November 1944. No later information has been obtained.

SECTION VIII: EVASION AND ESCAPE:

Refer to "Bulletins on Escape and Evasion" ("BEE") - #11 dated 5 October 1944, "On the Communist Forces"; #10 dated 8 September 1944; #9 dated 2 August 1944, "Escape and Evasion in North China"; #8 dated 26 June 1944, "On China".

Also refer to:

AGAS Map "Communist Areas in Northern China", inclosed with letter dated 7 November 1944.  
AGAS-CHINA (TOP SECRET) Bulletin dated 18 September 1944 - "Evasion and Escape in Honan and Shansi".  
AGAS-CHINA - Bulletin dated 3 September 1944 - "Evasion and Escape in Shantung Province".  
AGAS-CHINA (TOP SECRET) Bulletin #3 dated 8 April 1944, "Yangtze Valley and Northern China".

SECTION IX: PRISONER OF WAR CAMPS:

None known to be in Target Areas. Refer to "Japanese P.O.W. Camps", issued by P.O.W. Unit, XX Bomber Command and distributed in July.

SECTION X: AIR SEA RESCUE:

Details to be supplied at final briefing. No change in standard operating procedure -- see Signal Instructions.

SECTION XI: NAVIGATOR'S AID CHART:

A Navigator's Aid Chart, Exhibit A, dated 18 November 1944, has been provided, and two copies will be carried in each airplane -- one for the pilot and one for the navigator. This chart shows the battle line, radar warning nets, anti-aircraft emplacements, principal cities, and gives certain details on friendly airfields for use in emergency.

II. Target Intelligence

SECTION I: LIST OF VISUAL TARGET DATA:

1. Primary Target: Omura Aircraft Plant.

Objective Folder Data 90.36 (for briefing),  
XX Bomber Command Charts: C No. 21 (2nd edition), C No. 39,  
TC No. 23, TC No. 23A, PC No. 23A, PC No. 23B.

Mosaic.

Enlarged Mosaic (for briefing).

Target Model No. 440-2 (for briefing)

Target Model Photos.

2. Secondary Target: Kiangnan Dock & Engineering Works, Shanghai, China

Objective Folder Data 83.1 (for briefing).

AAF Target Chart No. 83.1-108.

Mosaic.

Target Chart No. 83.1 - 113.

SECRET

3. Last Resort Target: Wharf Area, Nanking, China.

Objective Folder Data 83.1-129.  
14th AF Target Chart No. 31.

SECTION II: LIST OF RADAR MATERIAL:

1. Primary Target: (Omura Aircraft Plant)

"A" Radar Navigation Maps, B-9 and C-4 for:  
Omura Aircraft Plant, Omura, Japan 90.36-1637  
Scope Drawings "A", "B", "C", and "X", scope photographic  
sheets "A", "B" and "C", Photo Mosaic and two (2) Radar  
Navigational maps for:  
Omura Aircraft Plant, Omura, Japan 90.36-1627 (furnished  
on mission #13.)  
Radar Scope Photographs, Nagasaki Area, Hungtze Lake,  
Sheet "A" and "C" and Saishu, Sheet "A" (special distb.)

2. Secondary Target: Kiangnan Dock & Engineering Works, Shanghai,

"B" - Scope drawing "D" for:  
Kiangnan Dock & Engineering Works, Shanghai, China  
83.1-117.  
Scope drawing "C" Radar Navigation Map for:  
Kiangnan Dock & Engineering Works, Shanghai, China  
83.1-117 - (furnished on mission #13)  
Scope Drawing "C" Point Island Storage Area, Shanghai, furn-  
ished on Mission #13.

3. Last Resort Target: (Wharf Area, Nanking, China)

"C" - Radar approach chart, B-16 (Second edition) and photo  
Mosaic for:  
Nanking Dock Area, Nanking, China, 83.1-129A

By command of MAJOR GENERAL LELLY:

SECTION

J. E. UPSTON;  
Brigadier General, U.S.A.,  
Chief of Staff.

OFFICIAL:

*Frank L. Scott Jr.*  
FRANK L. SCOTT JR.,  
Lt. Col., Air Corps,  
Chief, Intelligence Section.

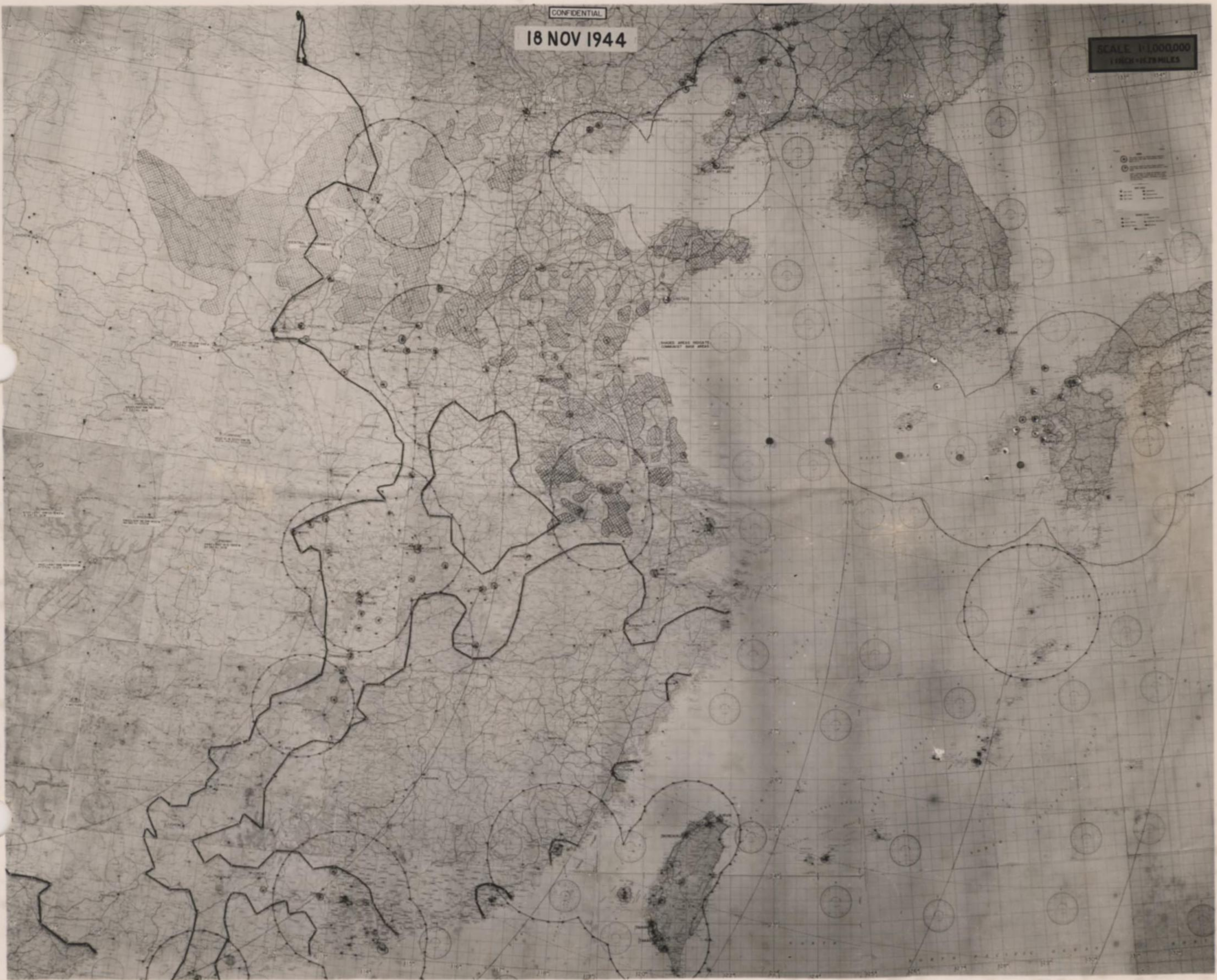
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By *SM* NARA Date *11/3/05*



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.Initials VBA  
.Date 19 Nov 44  
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ANNEX NO. 2 TO FIELD ORDERS NUMBER 17, XX BOMBER COM AND

RADAR FOLDER

1. The use of the AN/APQ-13, SCR-729, and SCR-695 and the employment of scope cameras will be as prescribed in pertinent RI's, SOI's and Tactical Doctrine. In addition, the SCR-729 may be used to home on IFF installed in air-sea rescue craft when necessary.

2. The final rendezvous point is the DANJO ARCHIPELAGO, located at  $32^{\circ} 02' N$  and  $128^{\circ} 25' E$ . From this point, all aircraft will fly a course of  $43^{\circ} M$  to the I.P., OIJIMA ISLAND, located at  $32^{\circ} 34' N$  and  $128^{\circ} 54' E$ . From the I.P. all aircraft will fly a course of  $73^{\circ} M$  to the target, the OIURA AIRCRAFT PLANT, located at  $32^{\circ} 55' N$  and  $129^{\circ} 56' E$ . Three (3) scope drawings, "A", "B" and "C" at forty (40), sixteen (16) and six (6) miles respectively from target and scope drawing "X", six (6) miles from I.P. were furnished with Field Orders Number 13. Radar scope photographs, Nagasaki Area have also been furnished. These will be used for study.

3. The course to the OIURA AIRCRAFT PLANT, located on the far shore of OIURA BAY, passes directly over the center of MINO ISLAND, which is located on course about one (1) mile before the target. With the proper combination of gain, tilt and intensity, the target will appear at a distance of over fifty (50) miles. MINO ISLAND will appear as a separate and distinct signal from the target at over forty (40) miles. The radar aiming point is the shore line edge of the target return, with the aircraft on course. The bombardier will be informed of the offset distance between the shore line and the actual aiming point.

4. Two (2) radar navigation maps, scale 1:250,000 and 1:1,000,000, an OIURA photo mosaic and three (3) sheets "A", "B" and "C" of actual scope photographs, in addition to the predicted drawings, were furnished with Field Orders Number 13. Two (2) additional radar navigational maps, scale 1:250,000 (C-4) and 1:500,000 (B-9) are also furnished. Photograph sheets "A" and "B" are of the OIURA and SASSEBO areas. Particular attention will be given to the appearance of the target from several headings and of other distinguishing features. Note especially that the center neck of MINO ISLAND disappears at close range, giving the appearance of two (2) distinct islands.

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By SM NARA Date 11/3/05

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5. Radar scope photograph sheets "A" and "C" contain scope photographs of HUNGTZE LAKE and of the CHINA COAST. The south shore of the lake at  $33^{\circ} 12' N$  and  $118^{\circ} 42' E$  is an assembly point for aircraft of the 40th and 444th Bomb Groups. Aircraft of the 462nd and 468th Bomb Groups will fly over the lake but will rendezvous at  $33^{\circ} 53' N$  and  $120^{\circ} 30' E$  on the CHINA COAST. Particular attention will be paid to discrepancies between the map and the scope photographs, which show that the map is incorrectly plotted.

6. The secondary target is the KIANGNAN DOCK AND ENGINEERING WORKS, SHANGHAI, located at  $31^{\circ} 12' N$  and  $121^{\circ} 29' E$ . The recommended I.P. is CAPE NELSON, located at  $31^{\circ} 43' N$  and  $121^{\circ} 57' E$ . This I.P. will provide the best radar axis of attack of  $221^{\circ} M$  to the target located in the lower south east section of SHANGHAI. The radar aiming point is the lower south east portion of the strong signal from the city. Predicted scope drawing "C", SHANGHAI, on an axis of  $282^{\circ} M$  and a radar navigational map were furnished on Field Order Number 15. Predicted Scope Drawing "D" on an axis of  $221^{\circ}$  is also furnished for detailed study.

7. The last resort target is the NANKING DOCK AREA, NANKING, CHINA located at  $32^{\circ} 06' N$  and  $118^{\circ} 45' E$ . The recommended I.P. is the mouth of the Hwai River at the south end of HUNGTZE LAKE located at  $33^{\circ} 12' N$  and  $118^{\circ} 42' E$ . This I.P. will provide the best radar axis of attack,  $182^{\circ} M$ , to the target. HSUNWU LAKE, in the center of the city will serve as an excellent check point. The radar aiming point will be at the shore line edge of the YANGTZE RIVER. Target chart Number 31 was furnished on Field Order Number 16. Radar Approach Chart, B-16 (Second Edition) and Photo Mosaic are also furnished for further study.

By Command of MAJOR GENERAL LEMLY:

JOHN E. UPSTON  
Brigadier General, USA  
Chief of Staff

OFFICIAL:

*Leonard S. Hermlin*  
LEONARD S. HERMLIN  
Major, Air Corps  
Acting Chief, Communications Section

Exhibits:

- "A" - Radar navigation maps, B-9 and C-4 for:  
OLURA AIRCRAFT PLANT, OLURA, JAPAN 90.36-1637
- "B" - Scope drawing "D" for:  
KIANGNAN DOCK & ENGINEERING WORKS, SHANGHAI, CHINA 83.1-117
- "C" - Radar approach chart, B-16 (Second addition) and photo mosaic for:  
NANKING DOCK AREA, NANKING, CHINA, 83.1 - 129A

-2-

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Authority *NND 760063*

By *SM* NARA Date *11/3/05*

S E C R E T

EXHIBITS TO ANNEX 2, FIELD ORDER 17

Mission No. 17

21 November 1944

Exhibits to Annex 2, Field Order No. 17, are listed below with their approximate original size.

<u>Title or Description</u>	<u>Approximate Original size in inches</u>
*Radar Navigation Map, Japan - Chart No. A-5	16 1/4 x 16 1/4
Radar Approach Chart, Japan - Chart No. B-9	16 1/4 x 16 1/4
Radar Approach Chart, Japan - Chart No. C-4	16 1/4 x 16 1/4
*Radar Approach Chart, Japan - Chart No. C-10	16 1/4 x 16 1/4
*Omura Area Aircraft Facilities (Photograph)	16 1/4 x 16 1/4
**Target Chart No. 23A, Omura Area	16 1/4 x 14 1/2
Radar Scope Photographs, Saishu Island, Sheet A	8 x 16 1/4
*Radar Scope Photographs, Hung-Tse Lake Area, China	16 1/4 x 16 1/4
Radar Scope Photographs, Nagasaki	8 x 16 1/4
*Radar Scope Photographs, Omura Area, Japan Sheet A	16 1/4 x 16 1/4
*Radar Scope Photographs, Omura, Nagasaki Area, Japan, Sheet B	16 1/4 x 16 1/4
Radar Scope Photographs, Omura Area, Japan, Sheet C	16 1/4 x 16 1/4
*Probable appearance at Point A 40 miles from target	8 x 16 1/4
*Probable appearance at Point B 16 miles from target	8 x 16 1/4
*Probable appearance at Point C 6 miles from target	8 x 16 1/4
*Probable appearance at Point X 6 miles from J.P.	8 x 16 1/4
*Probable appearance at Point C 11 miles from target	8 x 16 1/4
Probable appearance at Point D 30 miles from target	8 x 16 1/4
*Radar Approach Chart, China Chart No. B-13	16 1/4 x 16 1/4
Annotated Photograph- Hankow-Pukow Shipping	8 x 16 1/4
**Radar Approach Chart- China Chart No. B-16	16 1/4 x 16 1/4
***Target Chart No. 31 (14 Air Force) Nanking	22 x 24 1/4
*Annex O, T.M. Report #13	
**Annex P, T.M. Report #13	
***Annex N, T.M. Report #16	
****Annex O, T.M. Report #16	

Those exhibits marked with asterisks have been previously published and are not reproduced here. Those exhibits not marked with an asterisk follow.

-1-

S E C R E T

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Authority *NND 760063*

By *SM* NARA Date *11/3/05*

NAGASAKI AREA - KYUSHU

RADAR APPROACH CHART - JAPAN

CHART NO. B-9 RESTRICTED



NAVY INTELLIGENCE SECTION BY BOMBER COMMAND

RESTRICTED

STATUTE MILES NAUTICAL MILES SCALE 1:500,000

SECOND EDITION

COMPILED AND REPRODUCED BY THE NAVY INTELLIGENCE SECTION

DECLASSIFIED

Authority **NND 760063**

By **SM** NARA Date **11/3/05**

NAGASAKI AREA - KYUSHU

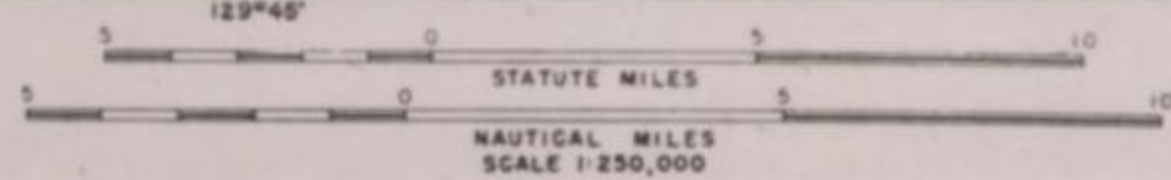
RADAR APPROACH CHART - JAPAN

CHART NO. C-4 RESTRICTED



TARGET UNIT - INTELLIGENCE SECTION  
IX BOMBER COMMAND

RESTRICTED



RESTRICTED

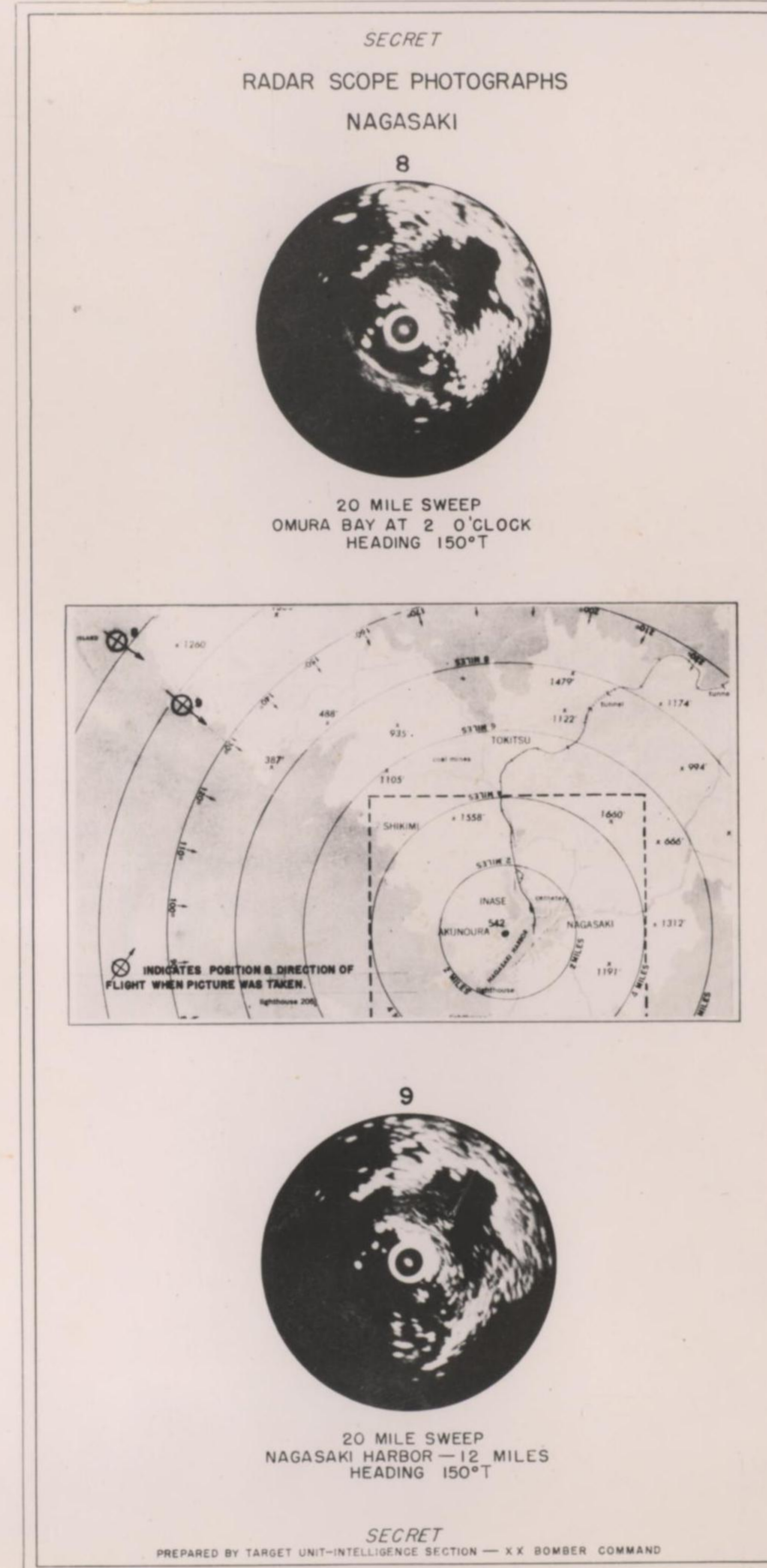
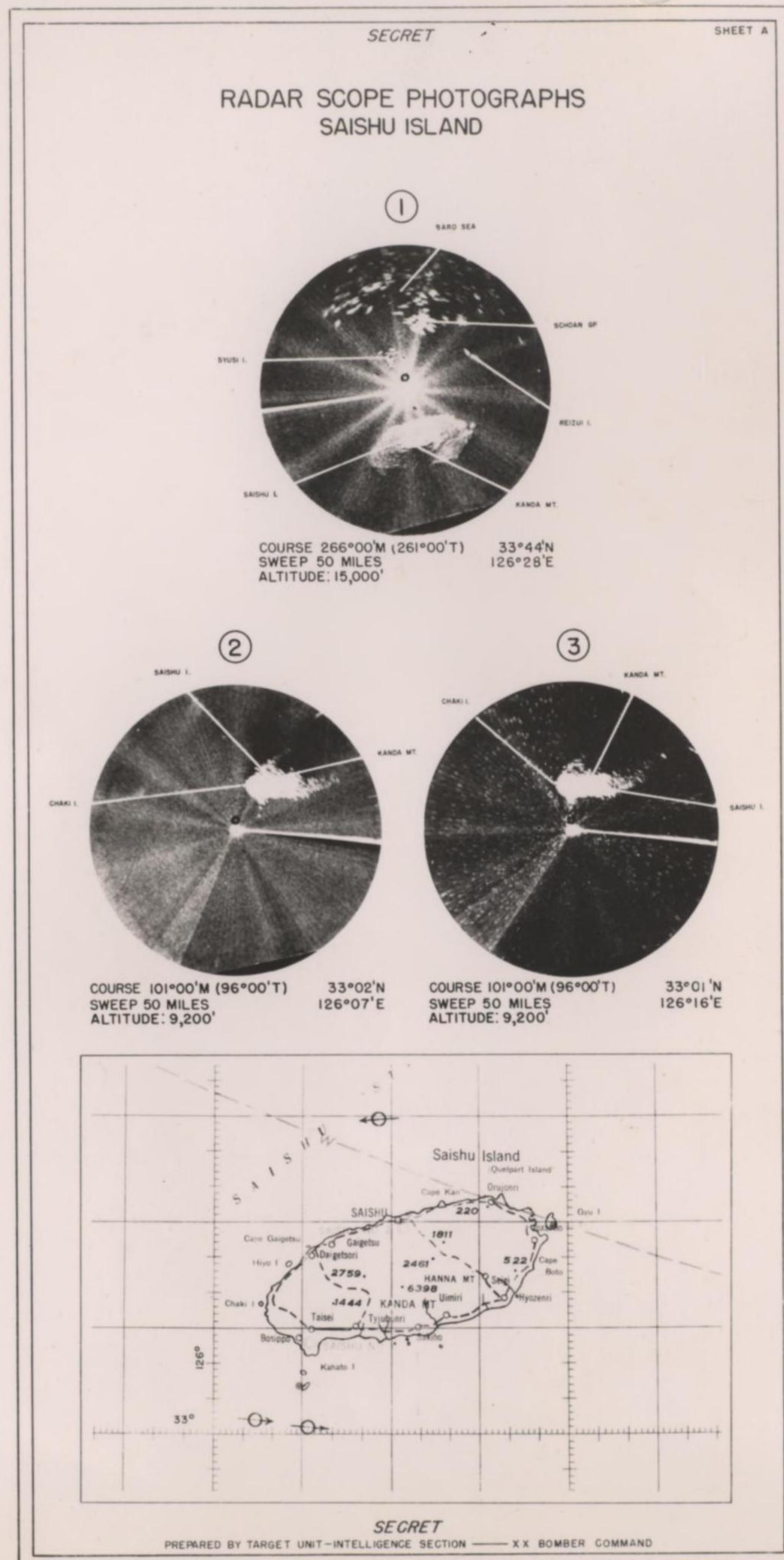
SEPTEMBER 1944  
REPRODUCED BY 958 ENR AIN TOPO CO

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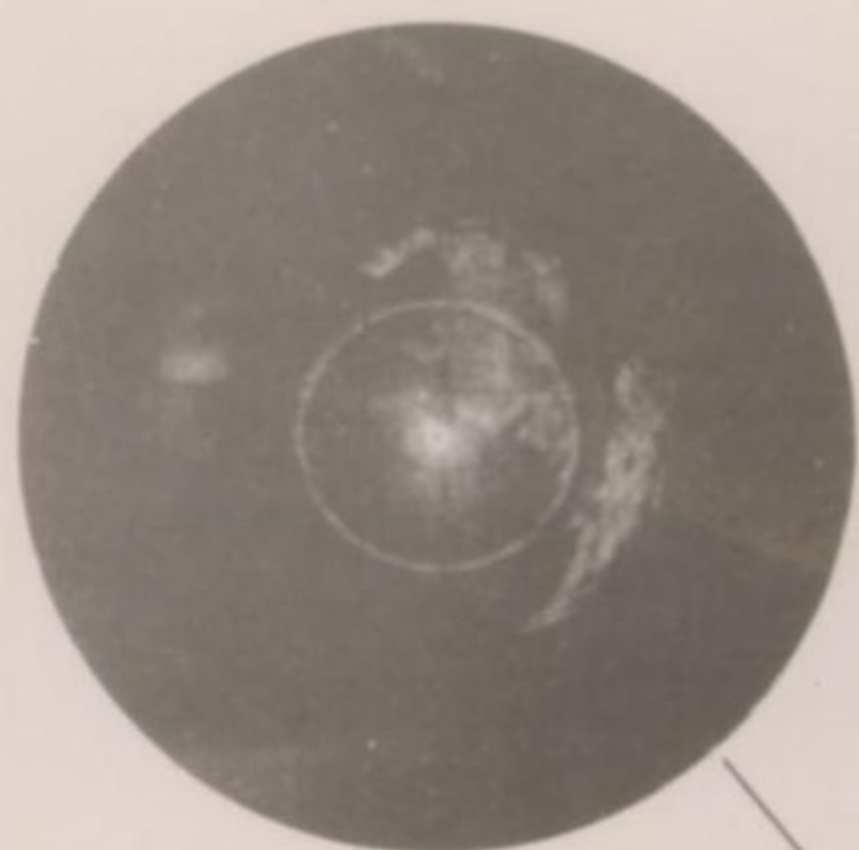
Authority *NND 760063*

By *SM* NARA Date *11/3/05*



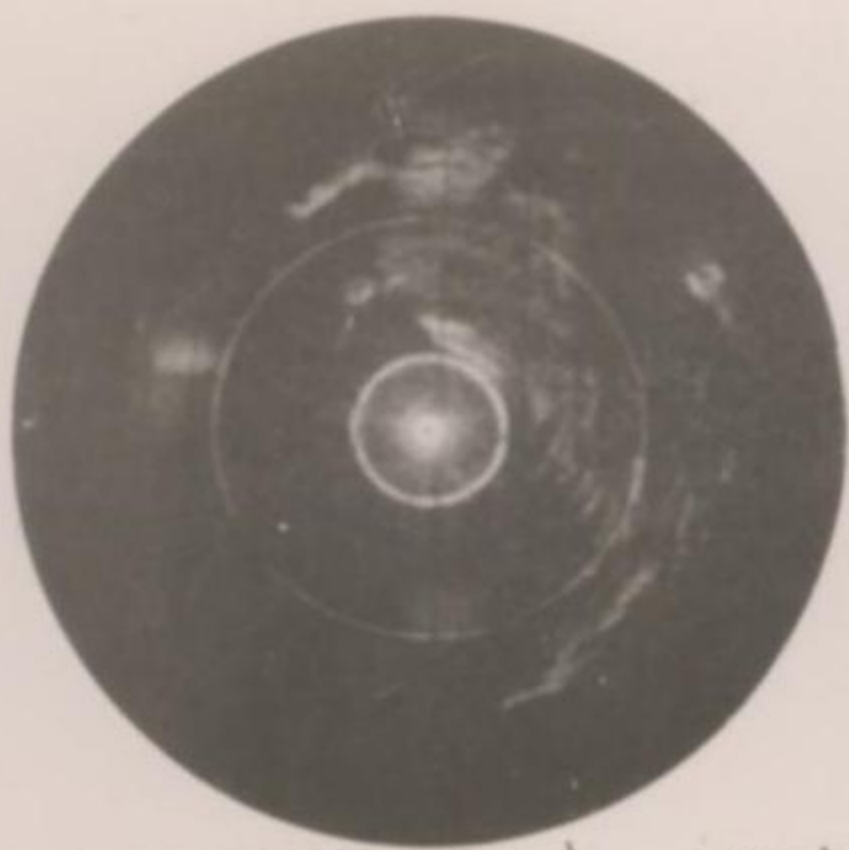


### RADAR SCOPE PHOTOGRAPHS OMURA AREA - JAPAN



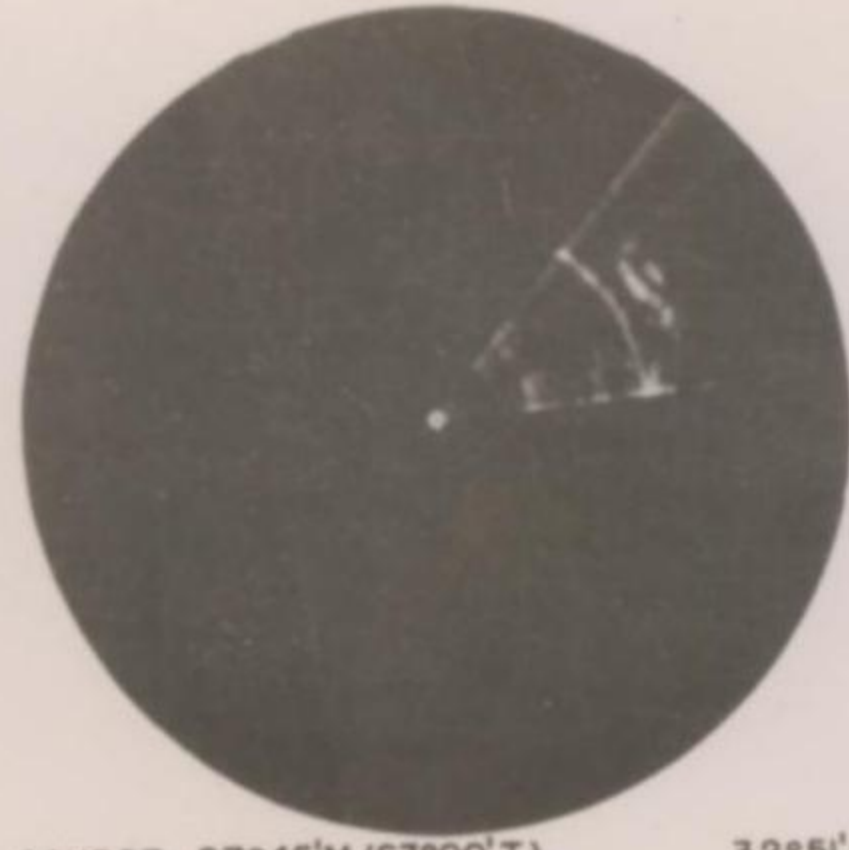
COURSE 67°45' (63°00'T)  
SWEEP 20 MILES  
ALTITUDE: 22,800'

32°48'N  
129°38'E



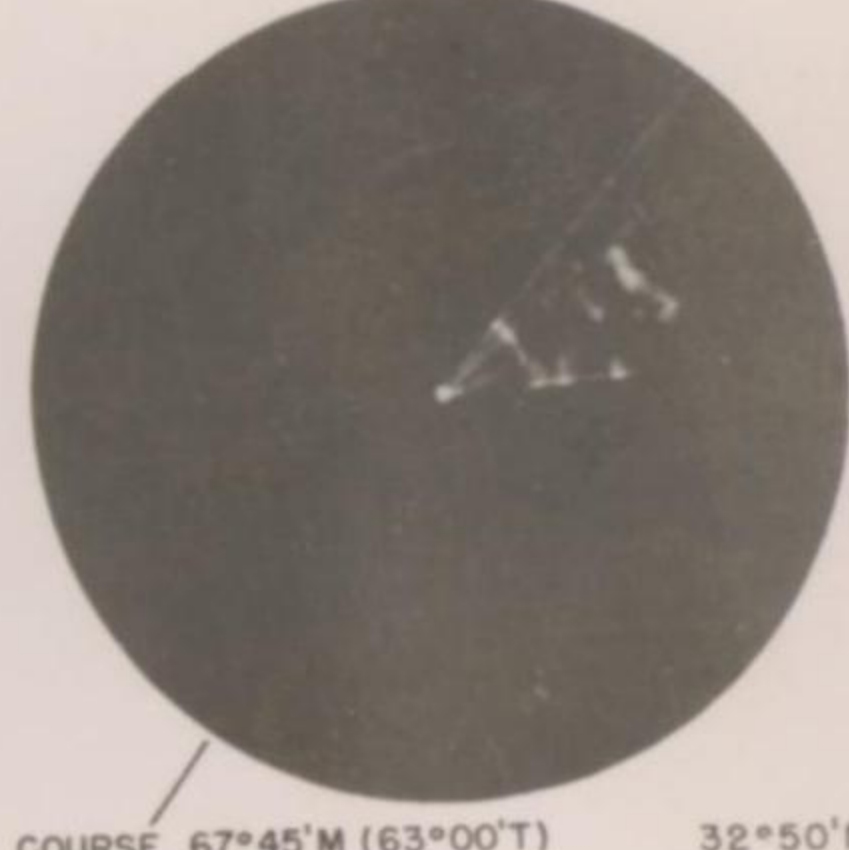
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SWEEP 20 MILES  
ALTITUDE: 22,800'

32°49'N  
129°40'E



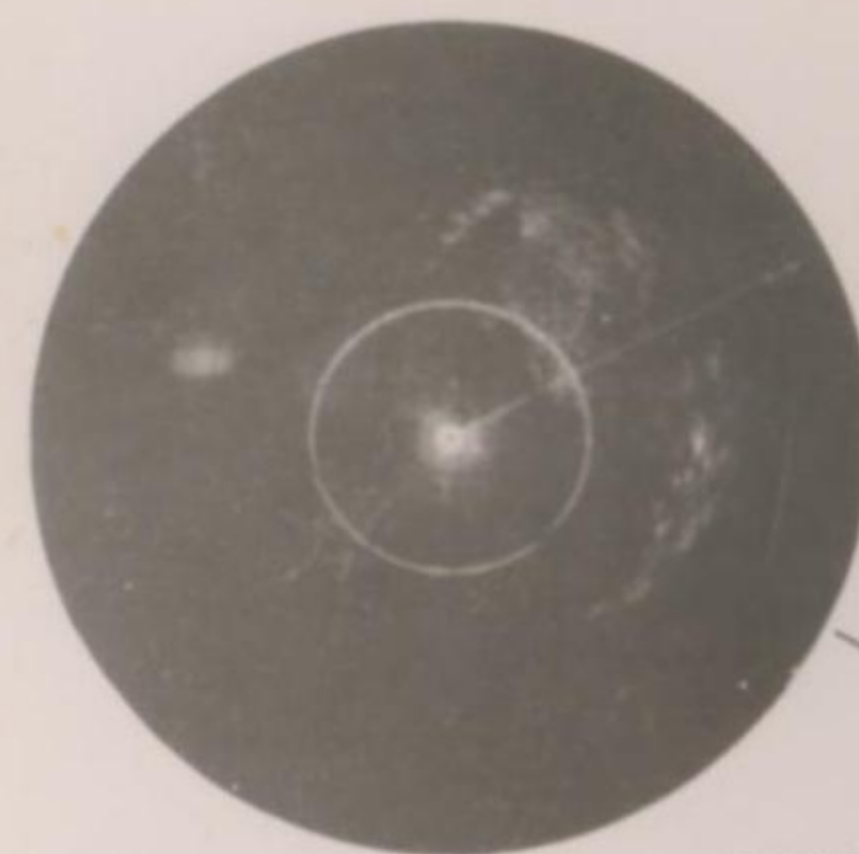
COURSE 67°45'M (63°00'T)  
SWEEP 20 MILES  
ALTITUDE: 22,800'

32°51'N  
129°44'E



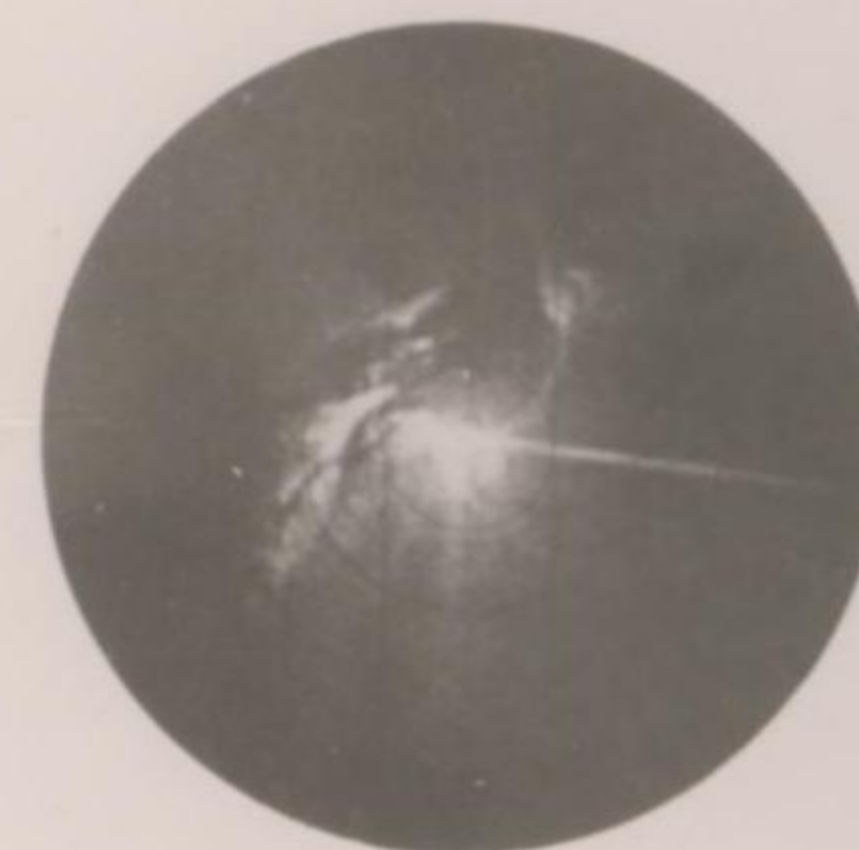
COURSE 67°45'M (63°00'T)  
SWEEP 20 MILES  
ALTITUDE: 22,800'

32°50'N  
129°46'E



COURSE 67°45'M (63°00'T)  
SWEEP 20 MILES  
ALTITUDE: 22,800'

32°47'N  
129°33'E



HUNGZE LAKE (CHINA)  
COURSE 99°00'M (94°15'T)  
SWEEP 50 MILES  
ALTITUDE: 12,450'

33°11'N  
118°47'E



COURSE 67°45'M (63°00'T)  
SWEEP 20 MILES  
ALTITUDE: 22,800'

32°53'N  
129°49'E



COURSE 67°45'M (63°00'T)  
SWEEP 20 MILES  
ALTITUDE: 22,800'

32°54'N  
129°52'E

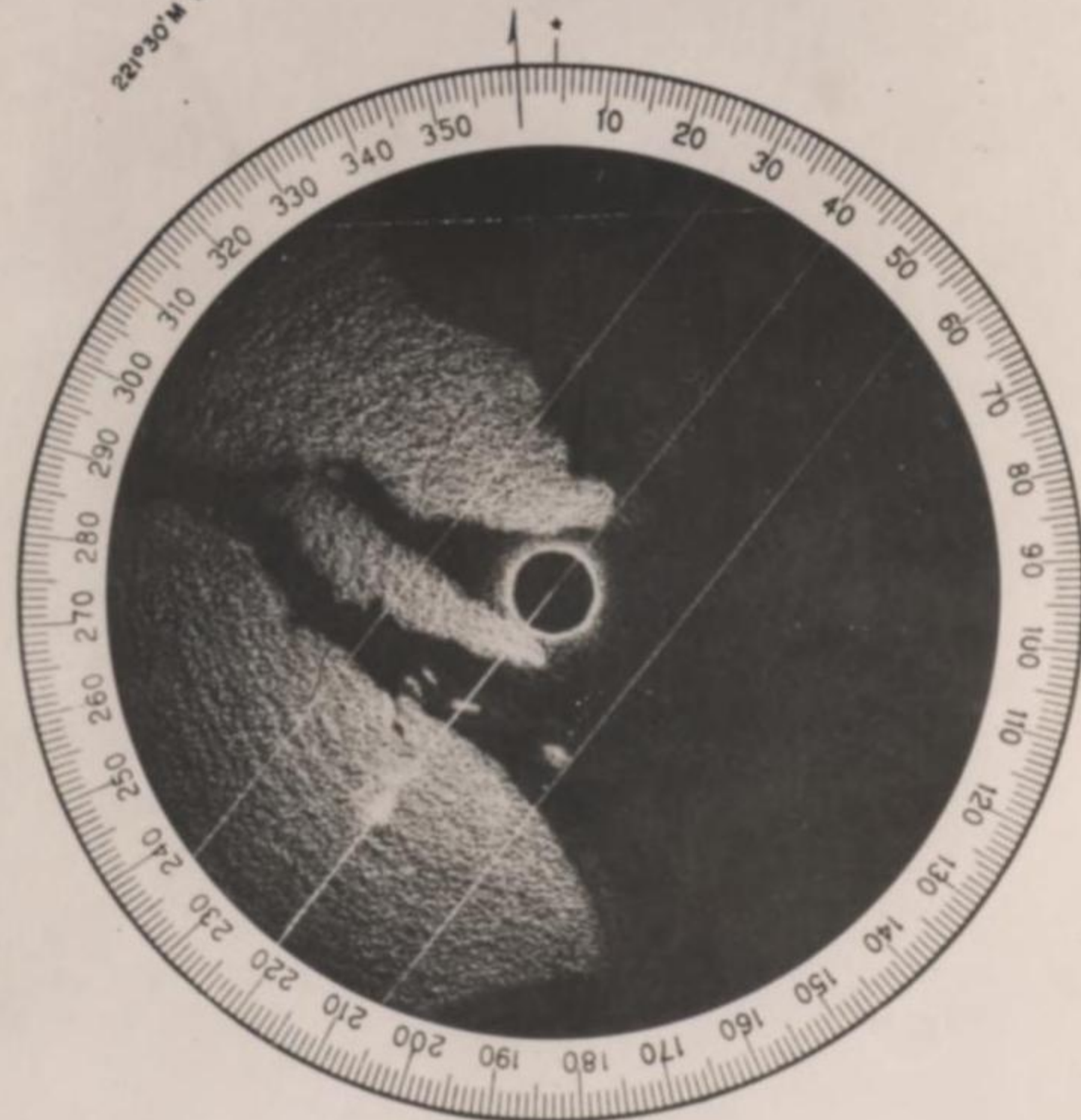
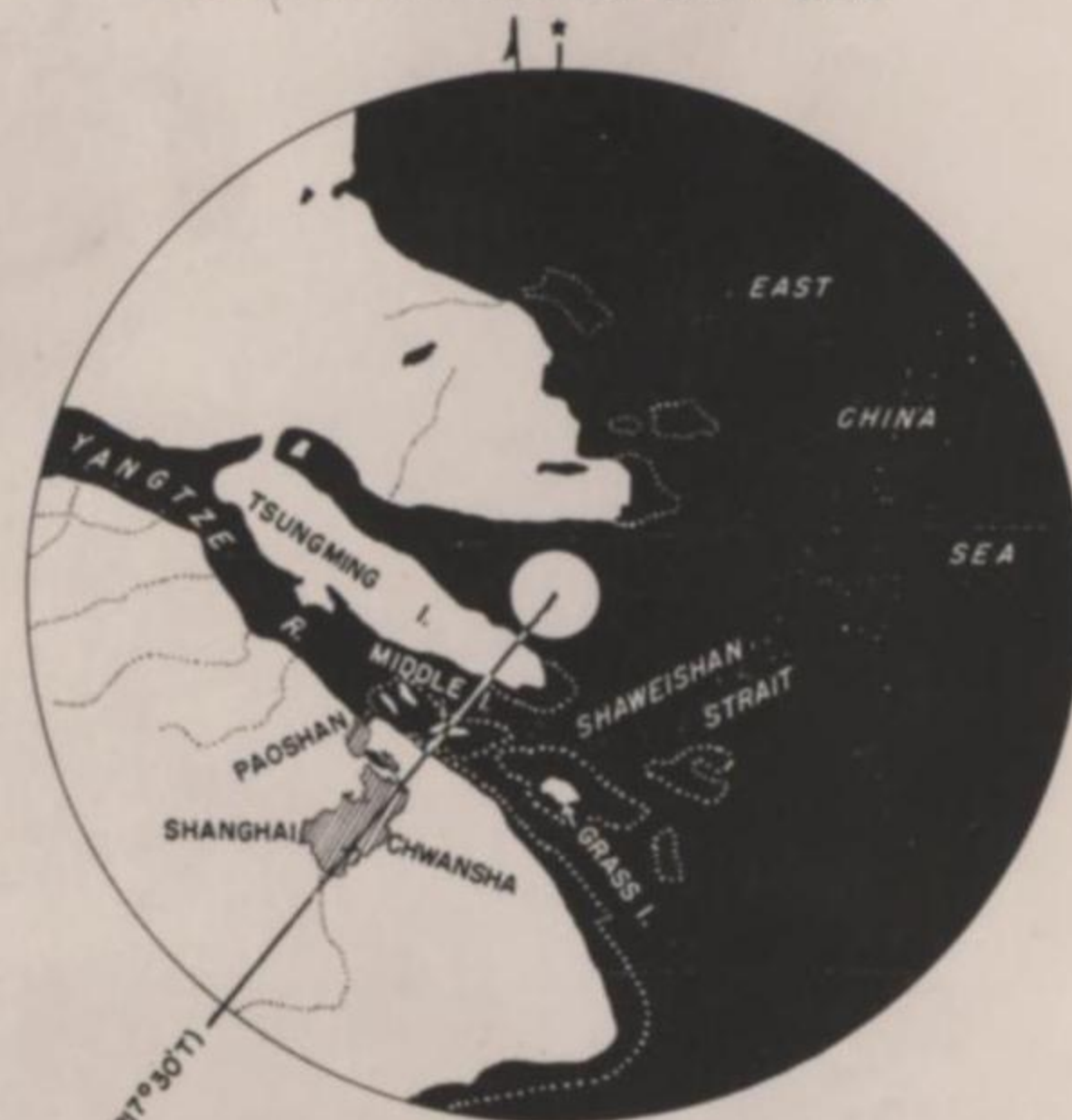
CONFIDENTIAL

R-93J-117 SHEET D

### PROBABLE APPEARANCE AT POINT "D"

30 MILES FROM TARGET  
ALTITUDE: 25,000'  
SWEEP: 50 MILES

LUBBER LINE FOR CONDITION OF "NO DRIFT"  
COINCIDES WITH CENTER DRIFT LINE

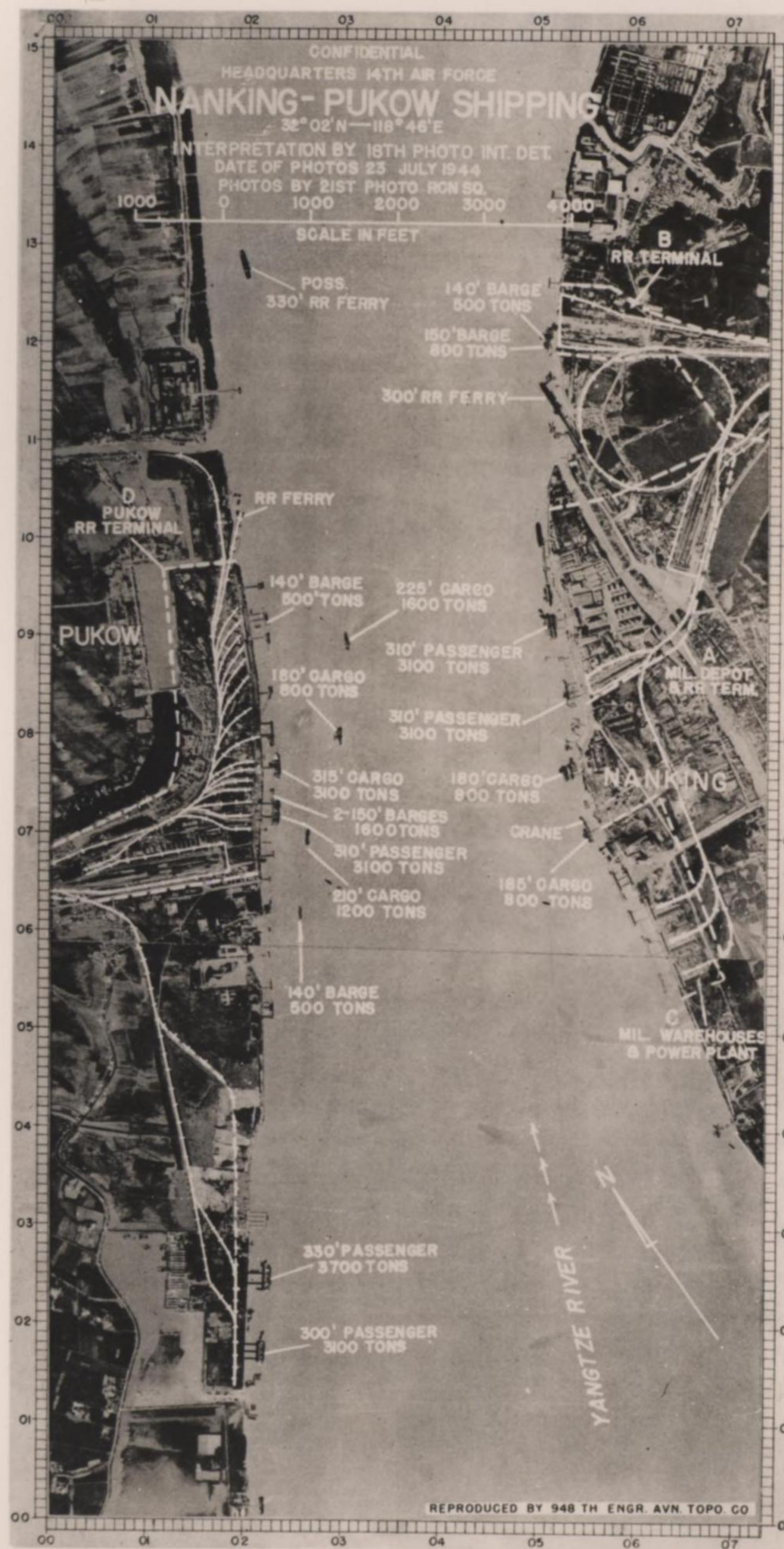


SCOPE PICTURES USABLE WITHIN SEVERAL THOUSAND FEET OF THE ALTITUDE FOR WHICH DISTORTIONS HAVE BEEN CALCULATED.

AT ALTITUDES OTHER THAN 25,000 GREATEST UNCERTAINTY OF DISTORTIONS WILL OCCUR NEAR CENTER OF SCOPE PICTURE.

CONFIDENTIAL

PREPARED BY TARGET UNIT-INTELLIGENCE SECTION XX BOMBER COMMAND



REPRODUCED BY 948 TH ENGR AVN TOPO CO

SECRET

SECRET  
Auth: CG XX BC  
Date: 19 Nov 44  
Initials: 1/1/44

NOT TO BE TAKEN INTO THE AIR  
ON COMBAT MISSION

ANNEX NUMBER 3 TO FIELD ORDERS NUMBER 17, XX BOMBER COMMAND

SIGNAL INSTRUCTIONS

1. During the movement to and the return from the Advance bases, communications will be normal, as for transport operations.
2. During the strike mission, communications will be in accordance with XX Bomber Command 100- series Memoranda, current SOI and Section VIII, current Tactical Doctrine.
  - a. Communications between aircraft and ground stations will be conducted using call signs and frequencies assigned in SOI effective on date of mission.
  - b. False grid number seven (7) will be in effect.
  - c. Air-sea rescue craft will be available. Necessary data for contacting rescue craft will be announced at Final Briefing.
  - d. 8280 kilocycles will be used for transmitting convoy sighting messages to rescue craft.
  - e. Following code words are assigned for takeoff and landing reports: 40th Group - WORSHIPFUL; 444th Group - BINOCULARS; 462nd Group - TILBOURNE; 468th Group - BUOYANCIES.
3. Airplane Commanders are cautioned not to rely on Japanese radio stations as a navigational aid.
4. Signal Supply: no change.
5. Index 1-16 to SOI will be in effect.

By command of MAJOR GENERAL LELLY:

JOHN E. UPSTON  
Brigadier General, USA  
Chief of Staff

OFFICIAL:

*Leonard S. Herrellin*  
LEONARD S. HERRELLIN,  
Major, Air Corps,  
Acting Chief, Communications Section.

SECRET

SECRET

SECRET  
Auth: CG XXBC  
Initials: *Y.P.H.*  
Date: 19 Nov. 44

NOT TO BE TAKEN INTO THE AIR ON

COMBAT MISSION

ANNEX NUMBER 1 TO ANNEX NUMBER 3 TO FIELD ORDERS NUMBER 17,

XX BOMBER COMMAND

SIGNAL INSTRUCTIONS

1. Aircrews will be informed at Final Briefing that sometime during the mission period a meaningless message will be transmitted by the ground station for the purpose of testing communications procedures.

2. Message will originate at the Command Post and will be transmitted to Groups encoded in current series CSP 1270 ( ). Message will be transmitted to aircraft as received from Command Post. For identification purposes message will contain the encoded phrase "Dummy Message".

3. Message will be addressed to lead crews if possible and only lead crews need receipt for message. However Group ground stations will ascertain that maximum number of aircraft receive message. Radio Operators of other aircraft than those receiving for message will log time message was intercepted.

4. Group Communications Officers will prepare as an Annex to their Specialists Reports, a time study of the passing of this message which will include:

- a. Time of transmission by ground station, and if transmitted more than once, the time of each transmission.
- b. Time of receipt by lead crew operators.
- c. Time of receipt by other operators as extracted from logs.
- d. An explanation of each failure to log the message if failures do occur.

By Command of MAJOR GENERAL LEMAY:

JOHN E. UPSTON,  
Brigadier General, USA  
Chief of Staff

OFFICIAL:

*Leonard S. Hermelin*  
LEONARD S. HERMELIN,  
Major, Air Corps,  
Actg, Chief Communications Section.

-1-

SECRET

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Authority *NND 760063*

By *SM* NARA Date *11/3/05*

SECRET

SECRET  
Auth: CG: XI BC  
Initials: W. SP  
Date: 19 Nov. 44

NOT TO BE TAKEN INTO THE AIR  
ON COMBAT MISSION

ANNEX NO. 4 TO FIELD ORDERS NO. 17, XXI BOMB COMD

RCM INSTRUCTIONS

1. Each Group will furnish two (2) RCM equipped aircraft, each with one RCM Observer.
2. Enroute to the target, the Bombardment Groups will search the Early Warning Band from 40 to 300 Mc. and if D/F Antennas are available, the observers will ascertain the location of the radar sites. If anti-aircraft fire from a land site is encountered, or if a Naval Task Force is sighted, all observers will change from Early Warning Search and concentrate on Radar Fire Control.
3. From the IP to the target and return to the IP, particular attention will be placed on Radar Fire Control Equipment. The Bombardment Groups will search the following bands:
  - a. 40th Bombardment Group
    - (1) 70-300 Mc.
    - (2) 1000-3300 Mc.
  - b. 444th Bombardment Group
    - (1) 300-1000 Mc.
    - (2) Enemy Communications
  - c. 462nd Bombardment Group
    - (1) 70-300 Mc.
    - (2) Enemy Communications
  - d. 468th Bombardment Group
    - (1) 70-300 Mc.
    - (2) 300-1000 Mc.

Enemy Communications Search assignments will be monitored over the target and during enemy aircraft intercepts. Returning from the IP to home base all groups will monitor Early Warning Bands.

By Command of MAJOR GENERAL LEMAY:

JOHN E. UPSTON  
Brigadier General, USA  
Chief of Staff

OFFICIAL:

*Leonard S. Hermelin*  
LEONARD S. HERMELIN  
Major, Air Corps  
Actg. Chief, Communications Section

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Authority NND 760063  
By SM NARA Date 11/30/05

S E C R E T

ANNEX

C

SUPPLEMENTAL INFORMATION

- I - Target Information
- II - Aids to Visual Bombing
- III - Determination of Bomb Load

Note; Antiaircraft information is the same as that published in Tactical Mission Report No. 16, Annex C, and therefore has not been reproduced here.

S E C R E T

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Authority *NND 760063*

By *SM* NARA Date *11/30/05*

NOT TO BE TAKEN INTO THE AIR ON COMBAT MISSIONS

C O N F I D E N T I A L

TARGET NO. 1627  
OBJECTIVE FOLDER NO. 90.36

TARGET DATA

1. OBJECTIVE:

OMURA AIRCRAFT PLANT, OMURA, JAPAN.

2. COORDINATES AND ELEVATION:

Latitude: 32° 55' N  
Longitude: 129° 56' 30" E.  
Elevation: 20'.

3. LOCATION AND IDENTIFIABLE FEATURES:

The Omura Aircraft Plant is located in the eastern shore of almost landlocked Omura Bay, approximately 20 miles SE of Sasebo Harbor and 1 mile northwest of the town of Omura.

The plant area is shaped like an isosceles triangle, the longest side being on the bay. Mino Island, shaped like a brassiere lies about 1.5 miles to the west-south-west, with heart shaped Usu Island 3/4 of a mile directly south. The airfield is located 1 mile to the north of the main plant.

4. IMPORTANCE:

The plant area is divided into three distinct parts.

- a. The old area 2200' X 1800' extending diagonally back from the main wharfs.
- b. The new south plant 2550' X 1010' extending south along the shore line.
- c. New east plant which is a continuation of the old plant.

The work involved in these three shop areas consists of repair to Zekes and Jakes, manufacture of the Pete and Zekes type aircraft as well as manufacture of the new carrier-borne attack plane Grace. Engines are likewise repaired and built at the Omura Plant.

5. VULNERABLE AREAS:

Each one of the three plant areas mentioned in paragraph 4 presents a separate objective. The old plant is believed to be the preferred choice for the first attack. The large flat-topped sub-assembly building in the north central location being a particularly vulnerable target.

OCTOBER 1944

TARGET UNIT INTELLIGENCE  
XX BOMBER COMMAND

C O N F I D E N T I A L

DECLASSIFIED

Authority NND 760063  
By SM NARA Date 11/3/05



NOT TO BE TAKEN INTO THE AIR ON COMBAT MISSIONS

C O N F I D E N T I A L

TARGET NO. 117  
OBJECTIVE FOLDER NO. 83.1

TARGET DATA

1. OBJECTIVE:

Kiangnan Dock and Engineering Works, Shanghai.

2. COORDINATES AND ELEVATION:

Latitude: 31° 12' N.  
Longitude: 121° 29' E.  
Elevation: Approximately Sea Level.

3. LOCATION AND IDENTIFIABLE FEATURES:

Commercial Shanghai is located near the mouth of the Yangtze River on the west side of the Hwangpoo River about nine miles upstream. The surrounding country is flat, criss-crossed by many canals and small streams, and has only an occasional low hill. Forty-mile-long Tsungming (Chungming) Island lies in the mouth of the Yangtze and is surrounded by many other smaller islands and mud flats. Shanghai is directly south of the center of this large island. This island, the meandering Hwangpoo and five large airfields in and about the city are the most significant identification features.

The Kiangnan Dock and Engineering Works is on the west bank of the Hwangpoo between the fourth and fifth large bends in the river. It occupies an area of about 66 acres and is the largest drydocks and yards in Shanghai. There are three drydocks in close arrangement. Their lengths are 520', 580' and 650'. The shortest is to the east, the longest to the west. Most of the buildings, consisting of an iron foundry, assembly, moulding and machine shops, storehouses, etc are located at the northeast side of the smallest drydock. Just to the west of the drydocks are the large machine shops, a brass and iron storehouse and an electric machine shop. Four slipways are located immediately west of the largest drydock.

4. IMPORTANCE:

The Kiangnan Dock and Engineering Works comprise one of the most important shipbuilding and repair facilities controlled by the enemy outside of Japan itself. The three drydocks (650', 580', and 520' long) are active in repairing Japanese cargo vessels and can accommodate naval ships up to the size of light cruisers. The four shipbuilding ways are turning out cargo vessels which ground intelligence from Shanghai describes as being principally ore carriers of from 2000 to 3000 gross tons. Construction time varies between two and four months, and from 6 to 12 ships are apparently built each year. In addition, this shipyard is reported to be constructing small wooden ships of standardized types. The Kiangnan shops are equipped with modern British machine tools and can make engines of 3000 horsepower or less. Destruction or damage suffered by this target would represent still another blow at Japan's weakening lifeline of ocean transportation.

5. AIMING POINTS:

Center of cluster of buildings east of the drydocks.

18 NOVEMBER 1944

TARGET UNIT, INTELLIGENCE  
XX BOMBER COMMAND

C O N F I D E N T I A L

-1-

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Authority NND 760063  
By SM NARA Date 11/3/05

NOT TO BE TAKEN INTO THE AIR ON COMBAT MISSIONS

C O N F I D E N T I A L

TARGET NO. 129

OBJECTIVE FOLDER NO. 83.1

TARGET DATA

1. OBJECTIVE:

Wharf Area, Nanking, China.

2. COORDINATES AND ELEVATION:

Latitude: 32° 06' N.  
Longitude: 118° 43' E.  
Elevation: Approximately 60 feet.

3. LOCATION AND IDENTIFIABLE FEATURES:

Metropolis Nanking is located on the east bank of the Yangtze River about 165 miles northwest of Shanghai. A large bend in the river just north of the city is cut off by two narrow canals thus forming a small crescent shaped island and a large globular island immediately on its south side. Another large but much narrower island is just south of the city. The walled-city is somewhat elongated on a northwest-southeast axis with the southeast end blunt and the northwest end narrow at the wharf area along the river. The Pukow railroad terminus is just across the river. A conspicuous canal, confluent with the Yangtze, bounds the city on the southwest, south and east. A meandering stream enters this canal from the southeast. At the northeast corner of the city a range of hills, with the highest point about 450 feet, extends east for about four miles. At the center of the south flank of these hills is the tomb of famous Sun Yat Sen. Hsuanwu Lake with its four sizeable islands is a prominent check point of the northeast edge of the city. A canal outside the city wall connects this lake with the river. Most of the wharf area is chopped off from the rest of the city by another canal.

Other important check points in the target area are two airfields. The Ming Ku Kung field is in the southeast end of the city within the wall. It covers an area about 3,600' x 3,800'. It has two concrete runways, 2,800' and 2,600' long that forms an "X" in the middle of the field. The Tai Chiao Chan Airfield is in the southeast suburbs of Nanking approximately two miles south-southeast of the Ming Ku Kung field. It measures about 4,300' x 5,000'. Three runways intersect at the southwest corner. The northeast-southwest runway is unpaved. The other two are concrete. The hangar and operations area is at the north side of the field.

4. IMPORTANCE:

The city of Nanking, on the Yangtze River, is one of the enemy's chief military centers in occupied China. The city contains a number of large barracks and storage areas. The movement of troops and supplies is accomplished by the excellent transportation facilities serving Nanking. The railroad line from Tientsin terminates at Pukow, across the river from Nanking with which it is connected by ferry. Another railroad line connects Nanking with Shanghai and continues on to Wuhu and the south. Ocean-going vessels are accommodated at the Nanking wharves.

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By SM NARA Date 11/3/05

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All these transportation services converge in the general target area, at the north of which is the Nanking R.R. terminal and R.R. ferry wharves. The area contains numerous large warehouses, a power plant, and along the waterfront are large pontoon wharves. Over a period of months an average of 424 cars has been observed in the Nanking rail yards (700 at Pukow) and shipping at the Nanking and Pukow wharves generally amounts to between 20,000 and 30,000 tons, although shipping activity has possibly declined recently.

Damage to this target area would hamper the flow of military traffic and destroy quantities of supplies stored there.

5. VULNERABLE AREAS AND AIMING POINTS:

There are two aiming points of opportunity at Nanking.

- a. The wharf area near the railway terminal on the east side of the river where ocean-going vessels may be found.
- b. The railway terminal on the Pukow or west side of the river which normally contains the greater volume of rolling stock.

6 NOVEMBER 1944.

TARGET UNIT, INTELLIGENCE  
XX BOMBER COMMAND.

C O N F I D E N T I A L

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By *SM* NARA Date *11/30/05*

S E C R E T

AIDS TO VISUAL BOMBING

Mission No. 17

21 November 1944

The visual aids included in the Bombardier's folder and their approximate original size are as follows:

<u>Title or Description</u>	<u>Size in Inches</u>
*Nagasaki Area - Chart No. 21	8 1/4 x 16 1/8
Fukuoka Area - Chart No. 39	16 1/4 x 17
*Omura Area - Target Chart No. 23	16 1/4 x 17
*Omura Area - Target Chart No. 23A	14 1/4 x 16 1/4
*Omura Area - Perspective Chart No. 23A	8 1/4 x 16 1/4
Omura Area - Perspective Chart No. 23B	8 1/4 x 16 1/4
*Photos of Models of Omura Area	8 1/4 x 16 1/4
*AAF Target Chart No. 83.1-108	15 1/2 x 19 1/2
*Shanghai Area - Mosaic	9 3/4 x 16 1/4
**Nanking - Target Chart No. 31 (14 A.F.)	22 x 24 1/4

Those exhibits marked with one asterisk have been previously published in Tactical Mission Report No. 13, Annex P, and are not reproduced in this Annex. The exhibit marked with two asterisks has been previously published in Tactical Mission Report No. 16, Annex O, and is not reproduced. The other exhibits follow.

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By *SM* NARA Date *11/3/05*

TARGET UNIT, INTELL. SEC.  
XX BOMBER COMMAND

### FUKUOKA AREA

NOVEMBER 1944

CHART NO. 39  
RESTRICTED



DECLASSIFIED  
Authority **NAV 760063**  
By **SP-4** Date **11/30**

**RESTRICTED**

REPRODUCED BY

10TH PHOTO TECH. UNIT

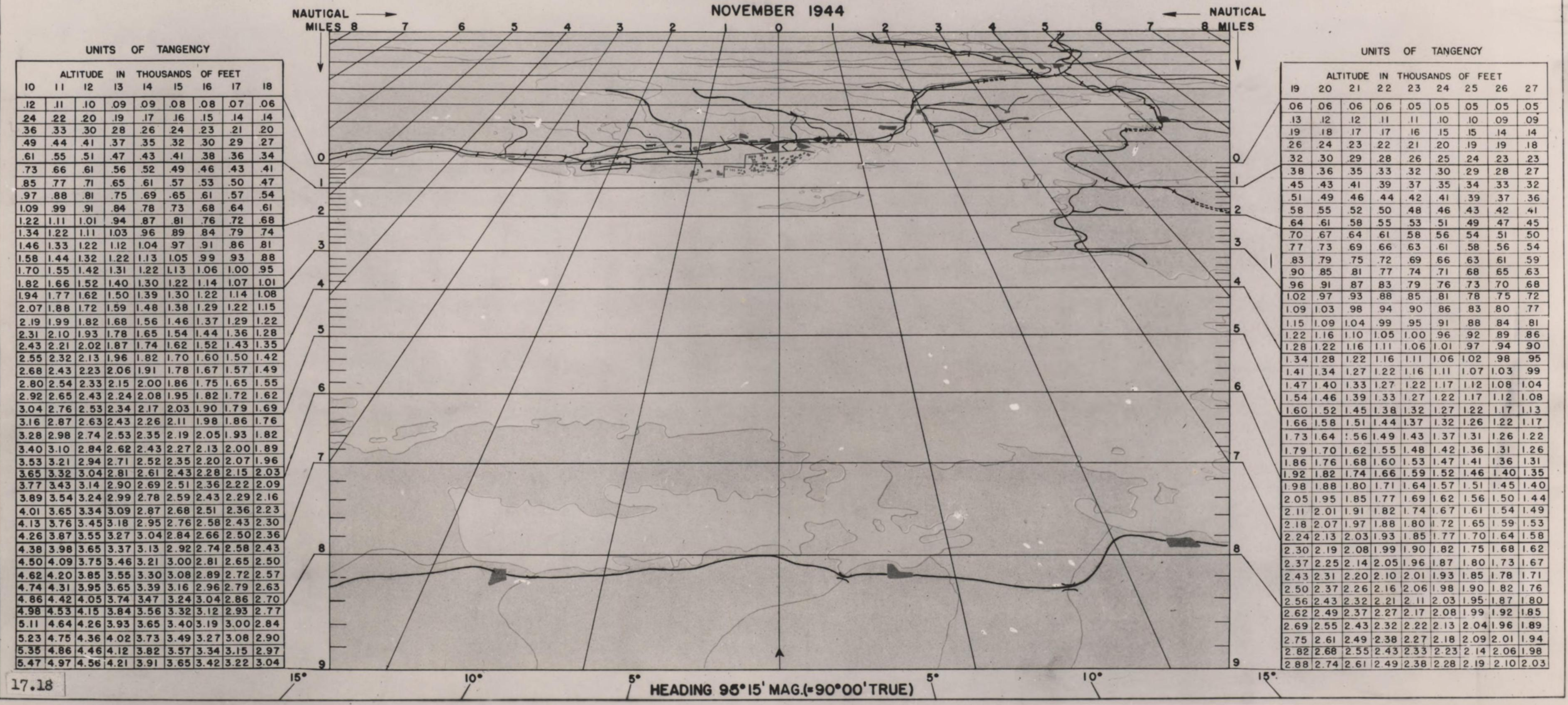
*Handwritten initials*

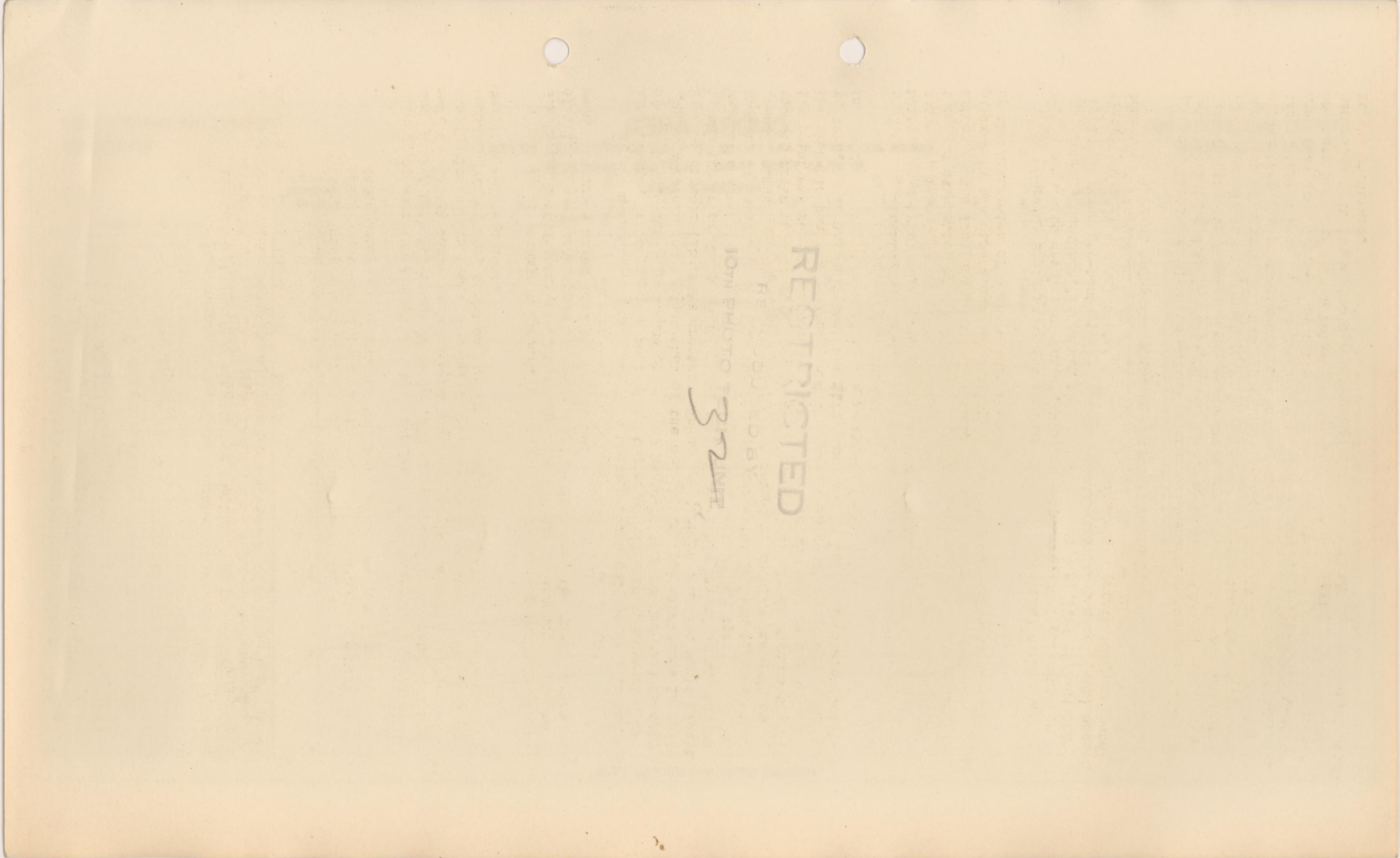
TARGET UNIT, INTELL. SEC.  
 XX BOMBER COMMAND

### OMURA AREA

OMURA AIRCRAFT PLANT (32°55'00"N, 129°56'30"E) ELEV. 20 FEET  
 15 MILES FROM TARGET-ALTITUDE 25,000 FEET

PERSPECTIVE CHART NO. 23B  
 RESTRICTED





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IDM PHOTO 321111





S E C R E T

DETERMINATION OF BOMB LOAD

Mission No. 17

21 November 1944

1. Aircraft not equipped with center section wing tanks were directed to load a minimum of eight 500-pound bombs. This applied uniformly to each of the groups. Aircraft equipped with center wing section tanks were directed to carry the following loads:

- 40th Group - a minimum of ten 500-pound bombs
- 444th Group - a minimum of eleven 500-pound bombs
- 462nd Group - a minimum of nine 500-pound bombs
- 468th Group - a minimum of ten 500-pound bombs per aircraft

All groups were instructed that the bomb load of each aircraft would be composed of both 500-pound GP bombs (TNT or Amatol filled) and 500-pound m-76 Incendiary bombs loaded in the ratio of two (2) demolition bombs to one (1) Incendiary bomb. Demolition bombs were to be carried on the lower racks and Incendiary bombs on the upper racks so that the incendiary bombs would be released last.

2. In an attempt to secure not only a co-extensive pattern of 500 lb G.P.'s and M-76 Incendiaries, but also one in which a reasonable uniform distribution of both types of bombs could be expected, the decision was made to carry a mixed load in each plane.

3. By means of loading M-76's in the top racks and the GP's in the lower racks, it is possible to exploit the good ballistic characteristics of the M-76. The actual time of fall of the M-76 from 25,000 feet is only .23 of a second longer than that of the 500 lb G.P. and difference in trail is only fifteen (15) mils greater. Those two factors combined would result in the impact of the M-76 being 274 feet short of the impact of the 500 lb G.P. at a true air speed of 300 miles per hour or a ground speed of approximately 441 feet per second. These conditions exist if both bombs were released simultaneously. With the present method of loading the M-76 on the top racks this differential is reduced somewhat. In as much as the aiming point was selected after due consideration to the size of the target, the probable bombing accuracy, and the expected dimensions of the formation pattern, it is unlikely that the difference in the ballistic characteristics of these two bombs will result in any wastage of bombs.

4. Examinations of results of previous attacks demonstrates the validity of the hypothesis that, except in rare instances, the individual points of impact of the M-76 and the 500 lb G.P. will be far enough apart that the detonation of the 500 lb G.P. will have no appreciable deleterious effect on the Incendiary action of the M-76 bomb. This phenomenon is explained by the dimensions and density of the formation pattern, as well as by the dispersion of bombs within a salvo.

5. Careful analysis of the various vital installations within the target area with respect to height, type of structure, roof construction, and probable contents, indicated that the 500-pound G.P. (TNT filled) bomb should be fuzeed one-tenth (.1) second nose and one one-hundred (.01) second tail delay. It was calculated that this fuzeing would permit adequate penetration, maximum down ward fragmentation, and effective blast in an area some 8 to 12 feet below the point of entry in the roof.

6. Similar analysis resulted in the recommendation that the 500-pound M-76 Incendiary Bomb be fuzeed instantaneous nose and non-delay tail. The fuze-functioning time of the instantaneous nose fuze varies from .0004 to .0006 seconds, a delay sufficient to detonate from three to four feet below the point of entry. The fuze-functioning time of the non-delay tail fuze is slower than the instantaneous nose fuze, but significantly faster than a .01 second tail delay. As a consequence activation of either the instantaneous nose fuze or the non-delay tail fuze would cause detonation of the M-76 Incendiary bomb far enough below the point of entry to provide a high degree of assurance that its contents would be widely dispersed and yet contained within the structure.

S E C R E T

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Authority *NND 760063*

By *SM* NARA Date *11/3/05*

S E C R E T

HEADQUARTERS  
XX BOMBER COMMAND  
APO 493

DISTRIBUTION - MISSION NO. 17

21 November 1944

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1 Commanding General, Twentieth Air Force  
2 Commanding General, XX Bomber Command  
3 Chief of Staff, XX Bomber Command  
4 Chief, Intelligence Section, XX Bomber Command  
5 Commanding Officer, Forward Echelon Detachment, Headquarters  
XX Bomber Command (Attention: Intelligence Officer)  
6 Commanding Officer, 40th Bombardment Group  
7 Commanding Officer, 444th Bombardment Group  
8 Commanding Officer, 462nd Bombardment Group  
9 Commanding Officer, 468th Bombardment Group  
10 - 39 Commanding General, Army Air Forces, Attention: AC/AS,  
Intelligence, Collection Division  
40 Assistant Chief Air Staff, Intelligence  
41 CINCPOA (Thru DEPCOMAF Twenty)  
42 COMGENPOA (Thru DEPCOMAF Twenty)  
43 Air Commander, Eastern Air Command, Attention: DCAS, OPTI  
44 Chief, Air Evaluation Board, Headquarters, Army Air Forces,  
United States Forces, India Burma,  
45 Commanding General, Tenth Air Force  
46 Commanding General, Fourteenth Air Force  
47 DEPCOMAF Twenty  
48 Chief of Staff, Twentieth Air Force  
49 Joint Intelligence Collection Agency  
50 ALUSLO, c/o XX Bomber Command  
51 Statistical Control, XX Bomber Command  
52 Communications (Radar), XX Bomber Command  
53 Photo Interpretation, XX Bomber Command  
54 Operational Analysis, XX Bomber Command  
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By *SM* NARA Date *11/30/05*

382  
HEADQUARTERS  
TWENTIETH AIR FORCE  
ADJUTANT GENERAL  
IN 9 19 6 10 11  
MAY 9 1964

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By SM NARA Date 11/30/05

