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Mission #26 Kobe MIDDLEMAN 1
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HEADQUARTERS
XXI BOMBER COMMAND

APO 234

General of the Army H.H. Arnold.

MISSION NO. 26

TACTICAL MISSION REPORT

Port and Built-up Urban Area

KOBE, JAPAN

4 FEB., 1945

SECRET

2-5239-108

COPY NUMBER 1

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FOREWORD

This initial Tactical Mission Report of the XXI Bomber Command, the first published for general distribution, is the report of the first major strike employing two Bombardment Wings. Prior strikes had either been missions of a nature for which no formal report was necessary or efforts by a single Bombardment Wing, whose reports received limited distribution.

Prepared by:

A-2 Section

XXI Bomber Command

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HEADQUARTERS
XXI BOMBER COMMAND
APO 234

TACTICAL MISSION REPORT

Field Orders No. 22

Mission No. 26

Target: Port and built-up urban area,

KOBE, JAPAN

4 February 1945

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: By auth. of the C.G. :
: XXI Bomber Command :
: 15 MAR '45 JDG :
: Date Initials :
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HEADQUARTERS
XXI BOMBER COMMAND
APO 234

SUBJECT: Report of Operations, 4 February 1945.

TO : Commanding General, Twentieth Air Force, Washington 25,
D. C.

1. IDENTIFICATION OF MISSION:

a. Field Order Number 22, Headquarters XXI Bomber Command, dated 31 January 1945, directed the 73rd and 313th Bombardment Wings to participate in the first coordinated attack by two wings of this command on a target in Honshu.

b. Targets Specified:

(1) Primary Target: Port and built-up urban area of the city of Kobe; Objective folder 90.25 Map M-9.

(2) Secondary Target: None

(3) Last Resort Target: Any industrial city.

2. STRATEGY AND PLAN OF OPERATIONS:

a. Reasons for Selection of Target:

(1) The weather forecast presented to the Commanding General on 3 February prognosticated three to four-tenths cloud coverage in the Kobe area, with favorable conditions en route and at bases for take-off and landing. Consequently, decision was made to attack Kobe on 4 February. This command had been continually striking the Tokyo and Nagoya areas and the enemy had possibly concentrated defenses in these two areas. An attack on Kobe, in addition to damaging the urban areas, would possibly force the enemy to spread his defenses--aircraft and antiaircraft--weakening his position in the Tokyo and Nagoya areas.

b. Importance of Target:

(1) Kobe, sixth largest city in Japan with a population of approximately 1,000,000, is Japan's principal port. Its shipyards represent Japan's largest concentration of ship-building and marine engine capacity. At Kobe, the Sanyo main rail line from the western tip of Honshu joins with the Tokaido main line west to Osaka and Tokyo. Key industrial plants, such as steel, railway equipment, machinery, rubber and ordnance, are closely integrated with Kobe's transportation activities. A national highway, the only notably good road in and out of Kobe, also runs through the congested sections of the city. The area selected for attack was the highly congested core of the city, having a population average of over 100,000 per square mile.

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c. Details of Planning--Operational

(1) Bombing Plans:

(a) Determination of Bomb Load:

(1) Because of the high degree of inflammability of the Kobe urban area, an incendiary attack was considered most effective. The E-28, 500 pound incendiary cluster (actual weight, 350 lbs.) was selected because it is the best available incendiary weapon. The T4 E4, 500 pound fragmentation cluster (actual weight, 420 lbs.) was used as an anti-personnel weapon to hinder potential fire fighters, thus increasing the effectiveness of the incendiary attack.

(2) Incendiaries were fused to open at 5000 feet because the best patterns are obtained from that altitude. Fragmentation clusters were fused to open 1000 feet below the aircraft for the same reasons.

(3) Intervalometer settings of 500 feet (or maximum possible under predicted winds) were used to give proper spread to individual incendiary bombs in each target area. Proper density of bombs was obtained through number of aircraft bombing in each formation.

(4) A mixed load insured even distribution of fragmentation clusters and incendiaries on the target. The fragmentation clusters were loaded to drop last because the actual range for the fragmentation bombs was less than that for incendiary bombs and it was desirable that the fragmentation bomb pattern coincide with the incendiary bomb pattern.

NOTE: The entire mission was planned in accordance with the AAF Board Report "Incendiary Attack on Japanese Cities," dated 1 Sept. 1944. Only deviations in planning were those necessitated by operational limitations and availability of aircraft.

(b) Bombardier's Planning:

(1) Takatsuki was originally selected as an initial point, but a change in forecast wind direction from an average of 260 degrees to 292 degrees necessitated a change to Otsu in order to cut down excessive drift on the bomb run. The upwind approach was used because the lower ground speed, as contrasted with a downwind run, allowed the bombardier more time in the immediate target vicinity for accurate synchronization.

(2) Since the objective was an area measured in miles, vulnerable areas 2,000 by 4,000 feet were selected. The designated approach, axis of attack of 318 degrees, was used so that the formation would be on the longitudinal axis of the selected areas. Four aiming points, clearly discernible to the bombardiers on the 318 degree axis of attack, were designated so as to cover four vulnerable areas, indicated on XXI Bomber Command Litho-Mosaic No. 90.25 as 058115, 071123, 092132 and 119128.

(3) The strength of the attack on the necessary axis of attack was not believed to be great enough to accomplish destruction of incendiary zone I (refer to appended incendiary

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zone map of Kobe). Consideration of predicted high winds and inter-valometer setting indicated the bomb pattern of a squadron would cover an area approximately 1700 by 3500 feet. Consequently, to obtain maximum destruction, the effort against each aiming point was distributed as follows: 058115, 3 squadrons; 071123, 2 squadrons; 092132, 2 squadrons, and 119128, 3 squadrons. This placed the efforts of 5 squadrons reasonably concentrated in the large area west of the main railroad station and five squadrons less concentrated in the long narrow area to the west.

(2) Navigation Planning:

<u>Route</u>	<u>Reasons for Choice</u>
Base 1700N - 14000E 2900N - 13545E	Wing departure point. A westerly course at low altitude to utilize most favorable winds in climb and prevent slow ground speed resulting from excessive head winds.
3328N - 13545E	Center of peninsula, allowing leeway for navigation error on either side of course.
3431N - 13523E (IP)	Easily identified radar and visual check point on the coast.
Target	A southeasterly course to base to utilize tail wind.

2300N - 14500E

A southerly route close to the northern Marianas for radar check points as well as a good reference point for ditched aircraft.

(3) Flight Engineer's Planning:

(a) Flight plan, speeds and altitudes were used as outlined in XXI Bomber Command Regulation No. 55-3 to obtain maximum fuel economy.

(b) Fuel requirements were calculated for an average aircraft flying the worst position in the formation with anticipated wind conditions. The fuel consumption estimate indicated the best safe minimum bomb load was 6,000 pounds. However, this was reduced to 5,000 pounds for the 313th Bombardment Wing since this was their first large-scale operation and an extra fuel load was deemed desirable in case of errors which would lengthen planned flying time.

(4) Radar Planning: Landfall on the southern coastline of Honshu at Kashimoto and navigation north to the coastline initial point of Otsu provided excellent radar check points. The initial point would be clearly visible on the scope and the upwing run of 318° could be accomplished with little or no drift. The target itself would show up as a long narrow return, with a definite bright return showing just southwest of the center of Kobe. Use of a definite water-land radar contrast made for easy identification of aiming point, whether for visual or radar bombing.

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(5) Radar Counter Measures: A diversionary attack was not deemed necessary because of the diversionary aspects of the selected route to Kobe. Counter measures against enemy radar controlled antiaircraft were not considered since intense accurate fire from such controlled weapons was not expected.

(6) Air-Sea Rescue Planning:

(a) The Navy was furnished with the details of the mission and requested to furnish available facilities for air-sea rescue purposes. The following facilities were made available. (See Annex A, Part VI, for Air-Sea Rescue map).

(1) Two submarines were diverted from their routine patrol against Japanese shipping and were stationed as follows during and after the mission until released by Super-Dumbos: 31° 30'N - 136° 45'E and 30°00' N - 138°15'E.

(2) One patrol destroyer was directed to the following positions on the following time schedule: 22°00' N-141°30' E from 032345Z to 040100Z and to proceed to 22°00' N-144° 30' E from 041030Z to 041400Z.

(3) Two Dumbo airplanes were assigned to the following stations for air-sea rescue work during the mission: 22°50'N - 140°00'E from 040030Z to 040230Z, and 22°00'N - 142°00'E from 032300Z to 040200Z.

(4) Picket boats and crash boats were assigned to the immediate vicinity of Saipan and Tinian to carry out Air -sea rescue work during the critical periods of take-off and landing as follows: a picket boat in Saipan channel 02030Z to 032230Z and 041100Z to 041500Z to guard 6970 kcs., and a crash boat off west end of Tinian north strip 041100Z to 041500Z to guard 6970 kcs.

(b) This command assigned 2 Super-Dumbo airplanes (B-29's) to orbit submarine position 31°30'N-136°45'E to assist in spotting, receiving distress signals, drop emergency equipment, and direct the submarines in event air-sea rescue facilities were required. The Super -Dumbos were instructed to release submarines to routine patrol duties when all planes had passed en route back to base.

d. Details of Planning--Intelligence

(1) Enemy Fighter Reaction: Kobe, which falls within the Kure-Nagoya region for purposes of enemy fighter analysis, has an estimated 302 enemy aircraft in its area, and assuming 70 per cent would be operational, 211 aircraft would be available for the enemy's defense system. This factor plus past experience indicated enemy air opposition would be no more than normal for an operation in the Kure-Nagoya area and selection of target, route, altitude, and time of bombing was not affected by enemy fighter reaction considerations.

(2) Enemy antiaircraft: A heading of 310 to 330 degrees would bring the attacking aircraft into range of the Kobe-Osaka defenses for the least amount of time since the approach was over Osaka Bay. Furthermore, winds were such that this heading could be used without experiencing excessive drift.

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3. EXECUTION:

a. Take-Off: The first group of the 73rd Wing was scheduled to take off at 032210Z and the first of the 313th Wing at 032255Z. Actual take-off was accomplished as follows:

<u>Wing</u>	<u>Aircraft Airborne</u>	<u>First Aircraft Takeoff</u>	<u>Last Aircraft Takeoff</u>
73rd	72	032056Z	032137Z
313th	<u>38</u>	<u>032129Z</u>	<u>032155Z</u>
Total	110	032056Z	032155Z

No assembly difficulties were experienced by either wing.

b. Route Out: The Bombardment Wings' formations made landfall within 10 miles of the briefed point on Honshu, with the exception of the 500th and 504th Bombardment Groups. Navigational error--failure to estimate correctly turn position prior to climb and compensate for increased velocity of cross winds experienced in the climb to bombing altitude--resulted in the 500th Bombardment Group making landfall 50 miles east of the briefed course. Consequently, this group was unable to reach Kobe because of the strong head winds on a due westerly course, which made for excessive fuel consumption, and the formation turned eastward to bomb Matsuzaka, a last resort target. The 504th Bombardment Group overcorrected to the west and was about 30 miles west of briefed course at landfall. However, because the group was flying on a downwind heading, it was able to bomb the assigned objective.

c. Primary Target: Formations arrived in the target area an average of 40 minutes late because of wind velocities greater than forecast. The aircraft attacked the target in seven formations, with 5 formations of 49 aircraft--9 to 10 aircraft per formation--dropping on the leaders who bombed by radar and 2 formations of 20 aircraft dropped on leaders who bombed visually. From 5/10 to 6/10 strato-cumulus cloud and several thin layers of cirrus clouds between 23,000 and 30,000 feet were experienced in the target area. A total of 69 B-29's dropped 159.2 tons of incendiary clusters and 13.6 tons of fragmentation clusters on Kobe from 24,500 to 27,000 feet from 040557Z to 040656Z. (See Annex E, Part I, Consolidated Statistical Summary, for details.) Damage assessment reports state 2,651,000 square feet were damaged in the target area.

d. Secondary Target: None assigned.

e. Last Resort Target: One formation of 15 B-29's of the 500th Bombardment Group bombed Matsuzaka for the reasons given above in paragraph 3b. Fourteen other B-29's bombed other last resort targets. A total of 69.4 tons incendiary clusters and 5.8 tons fragmentation clusters were dropped by 29 B-29's. (For details see Annex E, Part I, Consolidated Statistical Summary).

f. Targets of Opportunity: One B-29 returning early dropped 2.6 tons incendiary clusters and 0.2 tons fragmentation clusters on Pagan island.

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g. Route Back: After bombing, formations broke up beyond enemy fighter range and returned as briefed, utilizing stars and planets during the last 3 hours of flight. The northern Marianas were also utilized as radar check points. One B-29 of the 73rd Bombardment Wing, when it ran out of fuel 12 miles from Saipan after suffering battle damage in the Kobe area, was forced to ditch. The pilot had been killed prior to ditching. The remaining ten crew members were picked up by air/sea rescue.

h. Landing: Aircraft landed at bases under good weather conditions as follows:

	<u>Number Aircraft</u>	<u>First Landing</u>	<u>Last Landing</u>
73rd Wing	71	041104Z	041302Z
313th Wing	38	041225Z	041317Z
Total	109		

One aircraft of the 73rd Bombardment Wing had its number 1 engine catch fire and the aircraft burned after landing at Saipan. It was classified as "Lost to survey."

1. Operations Summary:

(1) Navigation: (See Annex A, Part I for details). Winds were 30 knots more than predicted and the navigation problem was primarily one of proper drift correction in the climb phase on the route out. The need for increased training and discipline in the use of radar equipment in the target area as a navigational aid was indicated since groups failed to fly directly over the initial point despite its easily distinguishable bright return on the scope.

(2) Bombing: (See Annex A, Part II, for details). The majority of bomb runs and releases were accomplished by radar with short visual checks. Errors in bombing were attributable to both personnel and equipment malfunctions. The most prevalent personnel error was the lack of air discipline. The use of radio bomb releases would help this situation. Several malfunctions of the A-2 release system necessitated salvaging of bombs.

(3) Flight Engineering: (See Annex A, Part III for details). Because of unexpected head winds, more time was taken to reach planned altitude at the target, thus using an average of approximately 350 more gallons of gasoline per aircraft than planned. B-29 A's were employed for the first time by this command and due to the smaller center wing section, these aircraft operate on 200 gallons less fuel. On future missions, these airplanes were to be given more advantageous positions in the formations.

(4) Radar: (See Annex A, Part IV for details). AN/AFQ-13 equipment was used for target area navigation, wind determination and approach for visual and radar bombing. Employment of SCR 718 radio altimeter and SCR-695 IFF equipment was normal. Fixes were taken using AN/AFN-4 equipment. A majority were at a range between 800 to 900 miles.

(5) Gunnery: (See Annex A, Part V for details). Gunners showed improvement in controlling their bursts, using the interphone, and designating their targets.

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(6) Air -Sea Rescue: (See Annex A, Part VI for details). One B-29 ditched approximately 12 miles from Saipan. The ten crew members were picked up by air/sea rescue facilities.

g. Weather: (See Annex B, Part I for details). The target area had a 6/10 to 8/10 altocumulus cloud band at 14,000 feet with tops at 16,000 feet as contrasted with the forecast of 3/10 to 4/10 cloud coverage. Winds over the target varied from 280 degrees, 145 knots to 280 degrees, 180 knots. Weather conditions at bases for the take-off and landing were good.

h. Communications:

(1) Radar Counter Measures: (See Annex C, Part I for details). Four RCM search aircraft, each with one RCM observer, participated in this mission. Search was made for enemy Early Warning Radar equipment until the mainland was reached, where search was made for GCI and GL radars and enemy fighter communications channels. A total of 51 radar signals was logged and 3 enemy VHF voice transmissions were recorded.

(2) Communications: (See Annex C, Part II for details). All strike frequencies were jammed or interfered with at different periods during the mission. The percentage breakdown of traffic per frequency follows: 45 per cent on 3145 kilocycles; 28 per cent on 11080 kilocycles, and 27 per cent on 6055 kilocycles. Radio silence was maintained to the target and overall security was good.

i. Intelligence Summary:

(1) From RCM intercepts and the presence of pacer aircraft, it is believed that the enemy had early prior warning of the attack and was able to alert his defenses.

(2) Enemy Air Opposition: (See Annex D, Part I for details). Enemy air opposition was strong, with an estimated 205 enemy aircraft making 273 attacks. Using averages, each B-29 sustained 2.8 attacks, which is less than that experienced on previous missions. Each Japanese fighter made 1.3 attacks, which is about normal. One per cent of the B-29 force was destroyed and 12 per cent damaged by Japanese fighters. Tojos and Tonys made 61 per cent of all attacks. The nose attack still predominated as the enemy's favorite, being used in 61 per cent of the attacks. A breakdown of approach tactics showed 41 per cent for approaches from below, 25 per cent from above, and 34 per cent level. Five coordinated attacks were reported. Some Tonys, Tojos and Nicks were observed to lower their landing gear prior to attack, possibly to reduce speed and improve approach effectiveness. A few enemy aircraft met the B-29's at sea and trailed the formations, probably communicating with their antiaircraft and fighter controllers.

(3) Antiaircraft: (See Annex D, Part II for details). There were no losses to antiaircraft, but 21 B-29's or 30 per cent of the attacking force, suffered battle damage. Antiaircraft fire was no deterrent from landfall to the target and from target to land's end. Over the target, accurate, moderate to intense fire through the overcast was experienced by all formations. One aircraft observed a phosphorous burst, described as "white umbrella-shaped pattern," in the Kobe area. The burst was approximately one mile to the rear of the reporting aircraft.

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(4) Bombing Results and Damage Assessment:

(See Annex D, Part III for details). Photo interpretation of Photo Reconnaissance Unit photos obtained on 5th and 6th February, 1945, showed visible damage covering 2,651,000 square feet. The three important industrial targets in the area were damaged as follows:

Target 169, Mitsubishi Heavy Industries, Ltd., approximately 68,000 square feet (2 per cent) of the plant was destroyed.

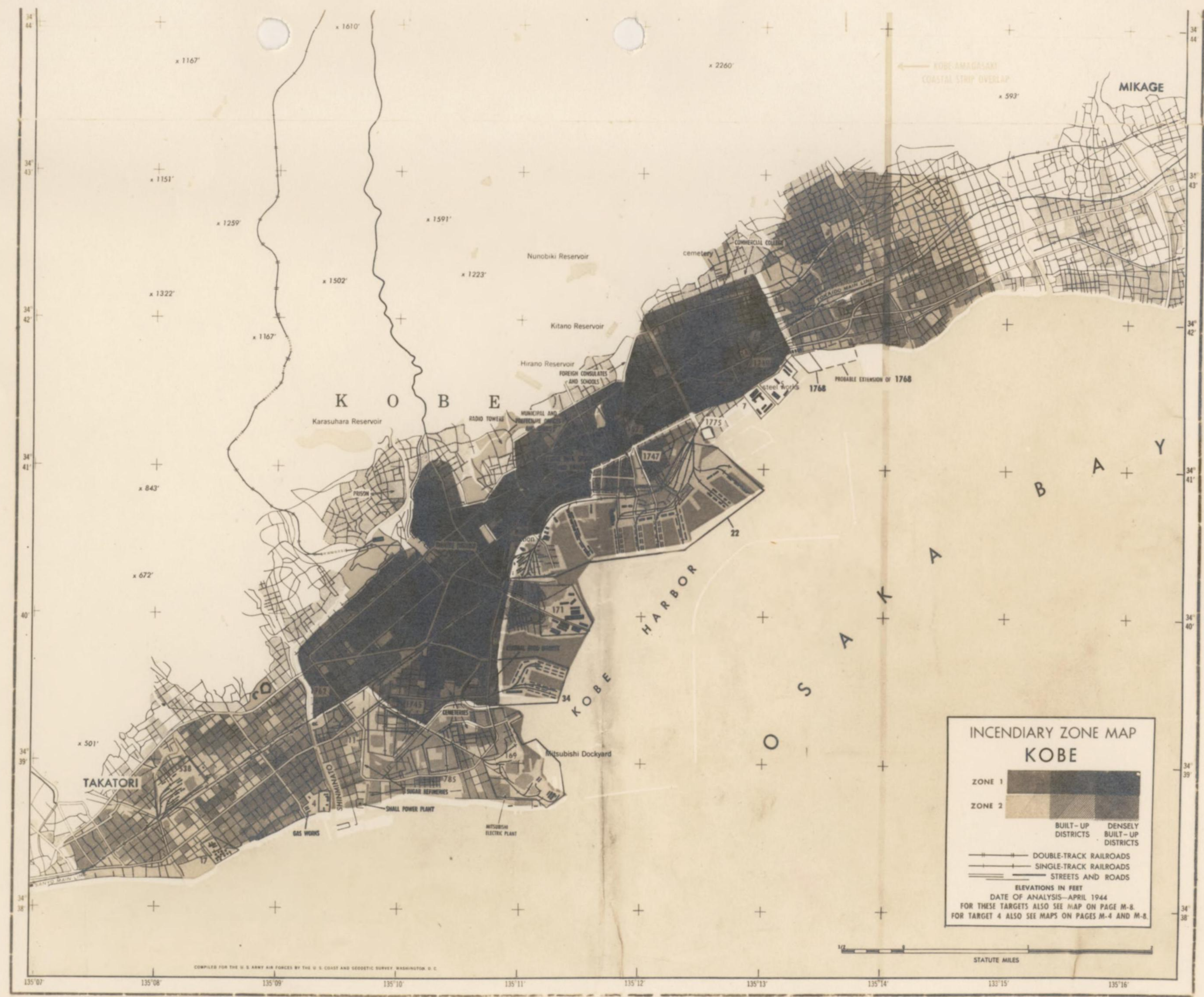
Target 785, Kanegafuchi Soda Industry--approximately 820,000 square feet (49 per cent) of the plant was destroyed.

Target 11, Kawasaki Locomotive and Car Company--approximately 22,000 square feet of roof area was destroyed.

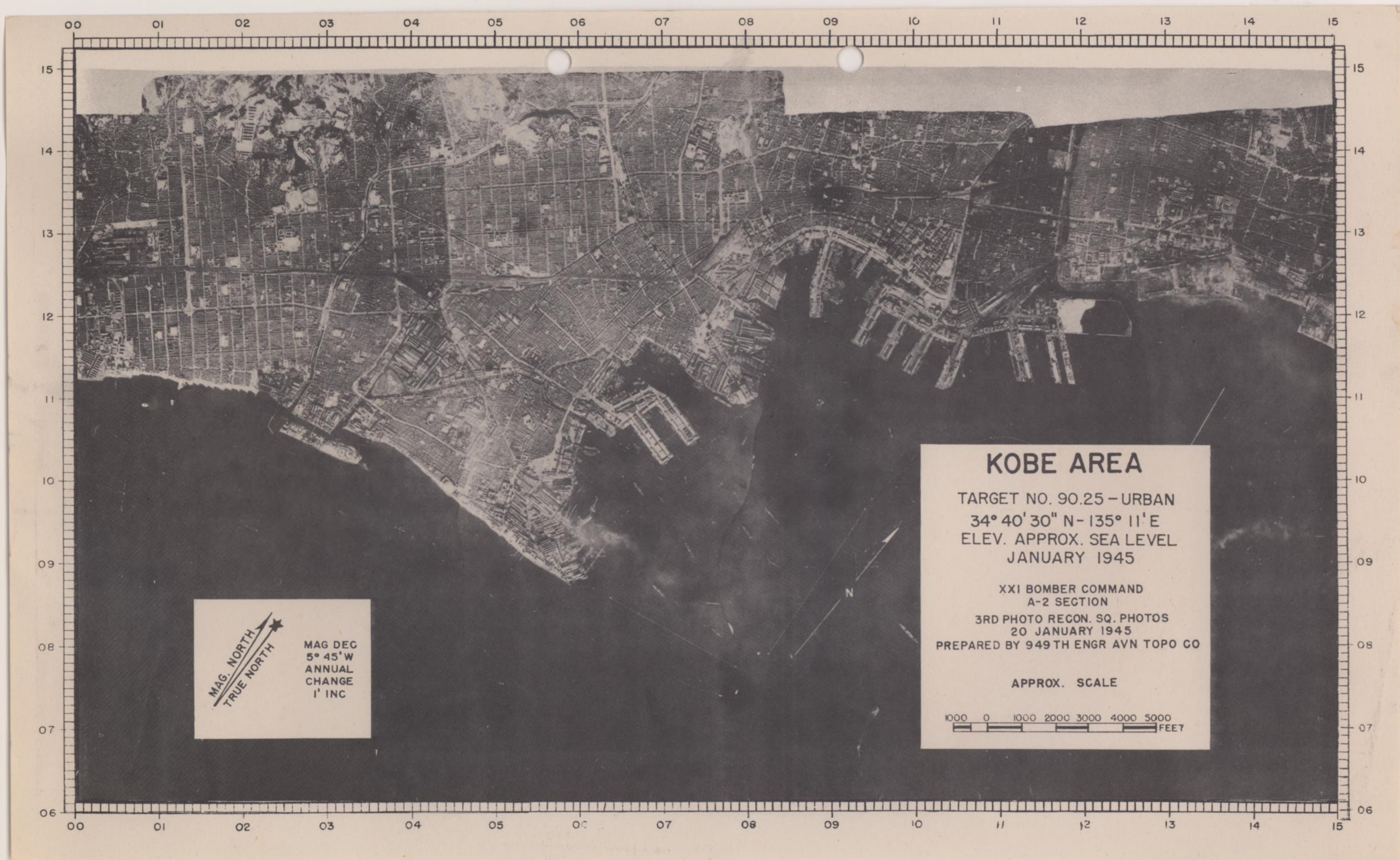
In addition, miscellaneous damage amounting to approximately 1,741,000 square feet was sustained by small industries and housing and business districts centered about the three targets listed above.

Curtis E. Lemay
CURTIS E. LEMAY
Major General, U.S.A.
Commanding

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COMPILED FOR THE U. S. ARMY AIR FORCES BY THE U. S. COAST AND GEODETIC SURVEY, WASHINGTON, D. C.



MAG. NORTH
TRUE NORTH

MAG DEC
5° 45' W
ANNUAL
CHANGE
1' INC

KOBE AREA

TARGET NO. 90.25 - URBAN
34° 40' 30" N - 135° 11' E
ELEV. APPROX. SEA LEVEL
JANUARY 1945

XXI BOMBER COMMAND
A-2 SECTION
3RD PHOTO RECON. SQ. PHOTOS
20 JANUARY 1945
PREPARED BY 949TH ENGR AVN TOPO CO

APPROX. SCALE

1000 0 1000 2000 3000 4000 5000 FEET

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A

ANNEX

A

OPERATIONS REPORTS

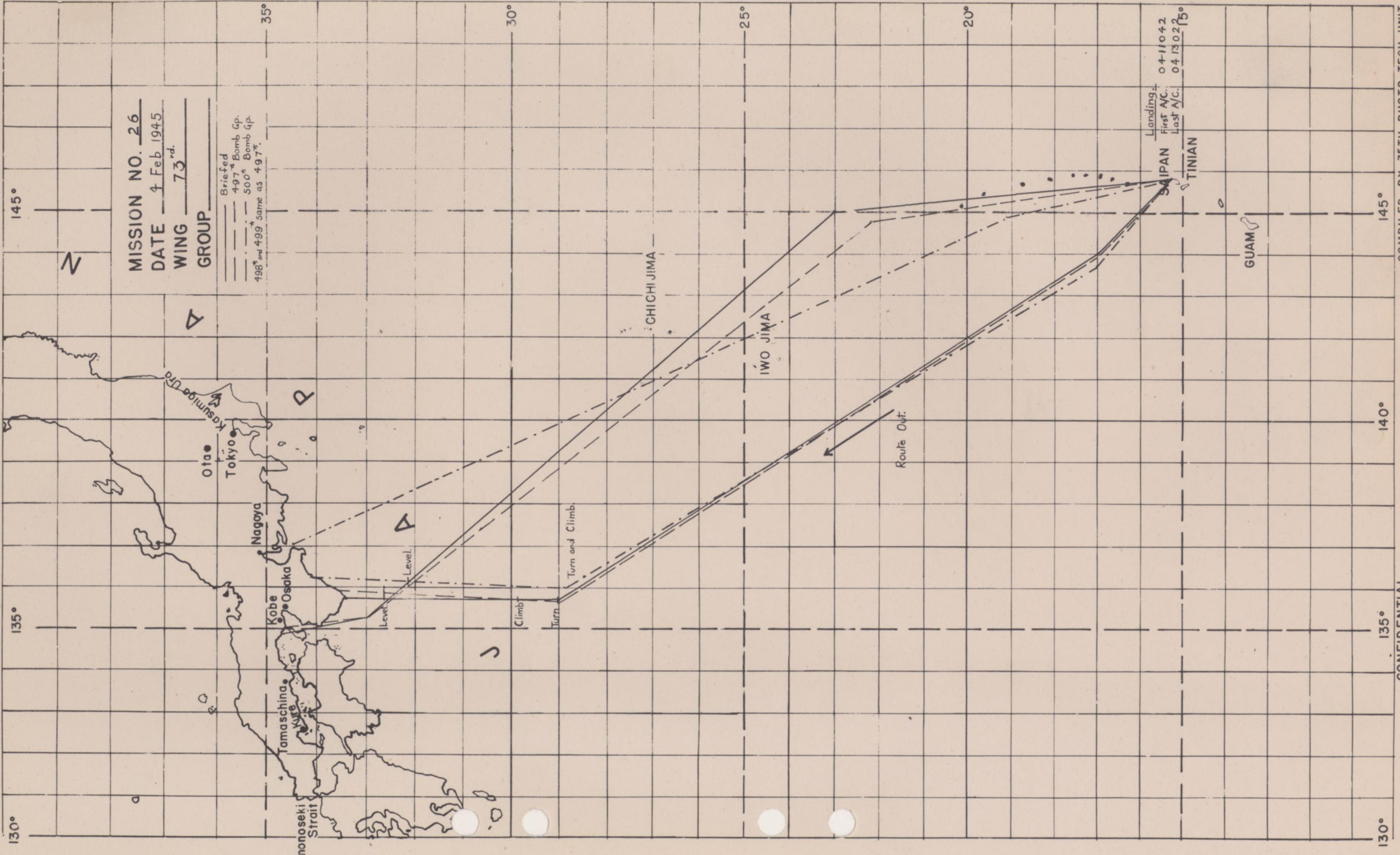
- Exhibit - Track Charts
- Part I - Navigator's Report
- Part II - Bombardier's Report
- Part III - Flight Engineer's Report
- Part IV - Radar Officer's Report
- Part V - Gunnery Officer's Report
- Part VI - Air-Sea Rescue Report
- Exhibit - Air-Sea Rescue Map

Mission No. 26

4 February 1945

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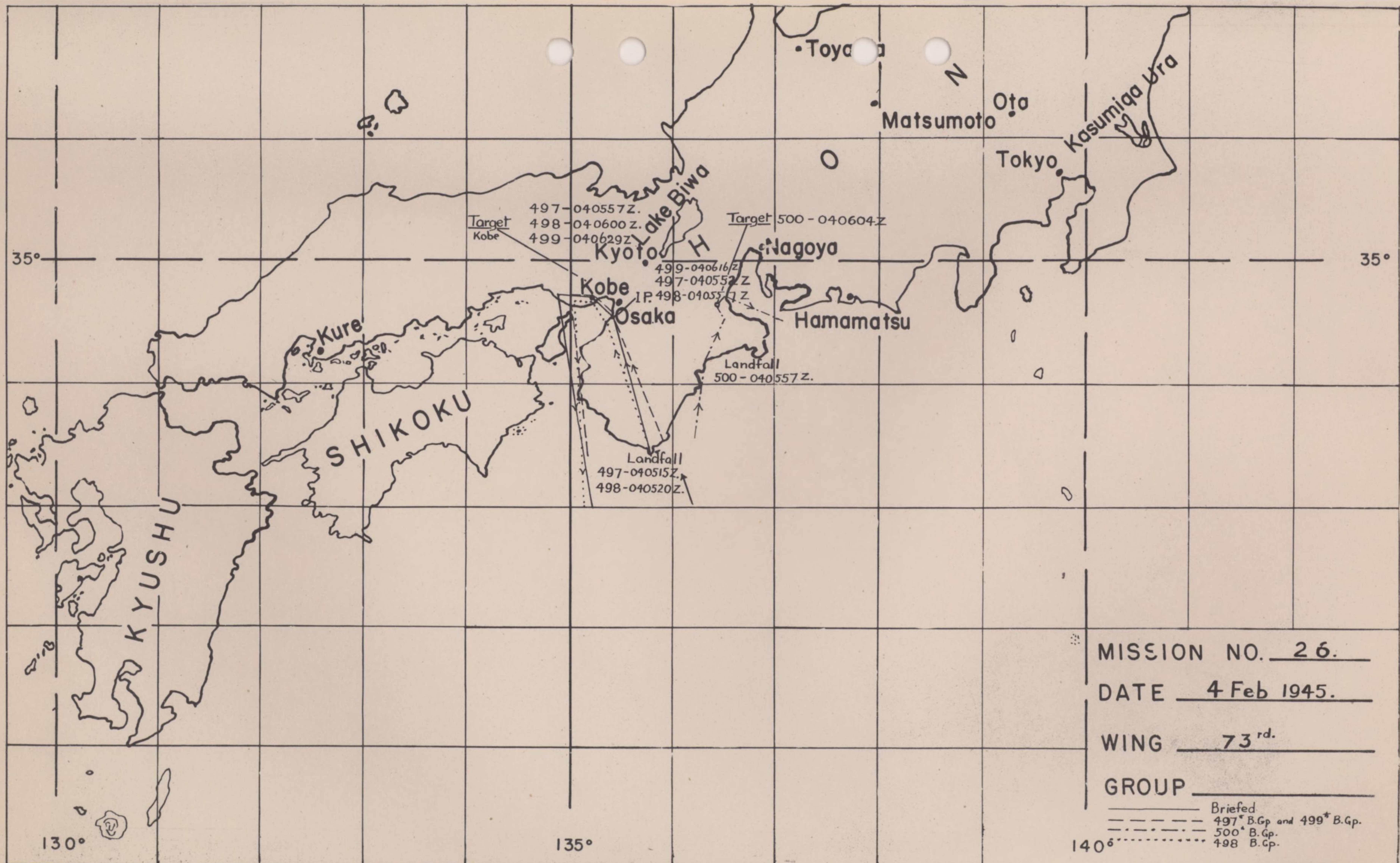
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 By SP-1 NARA Date 9/23



TRACK CHART XXI BOMBER COMMAND

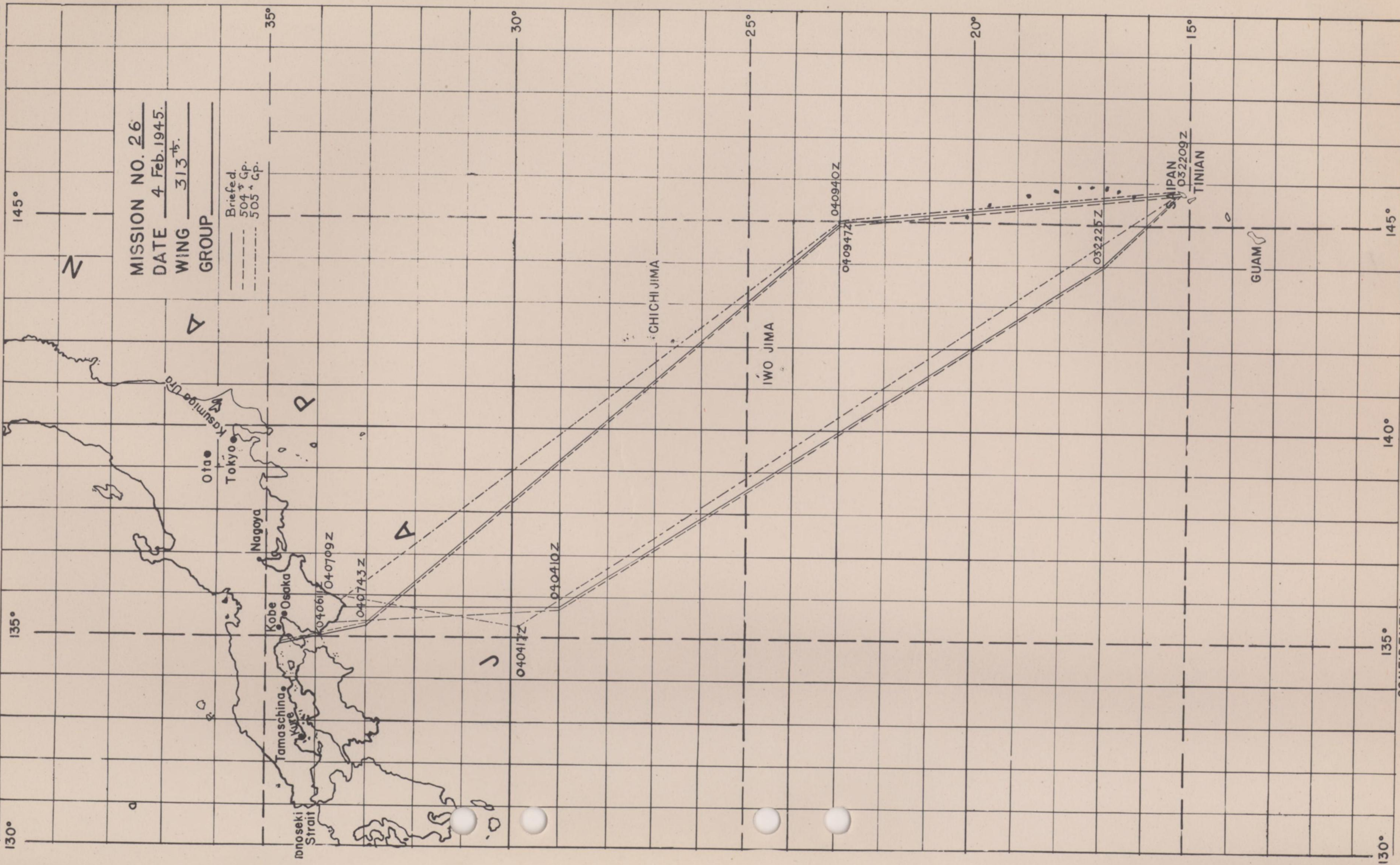
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MISSION NO. 26.
 DATE 4 Feb 1945.
 WING 73rd.
 GROUP _____

Legend:
 — Briefed
 - - - 497* B.Gp and 499* B.Gp.
 · · · 500* B.Gp.
 · · · 498 B.Gp.

COMPILED BY 35TH PHOTO TECH UNIT

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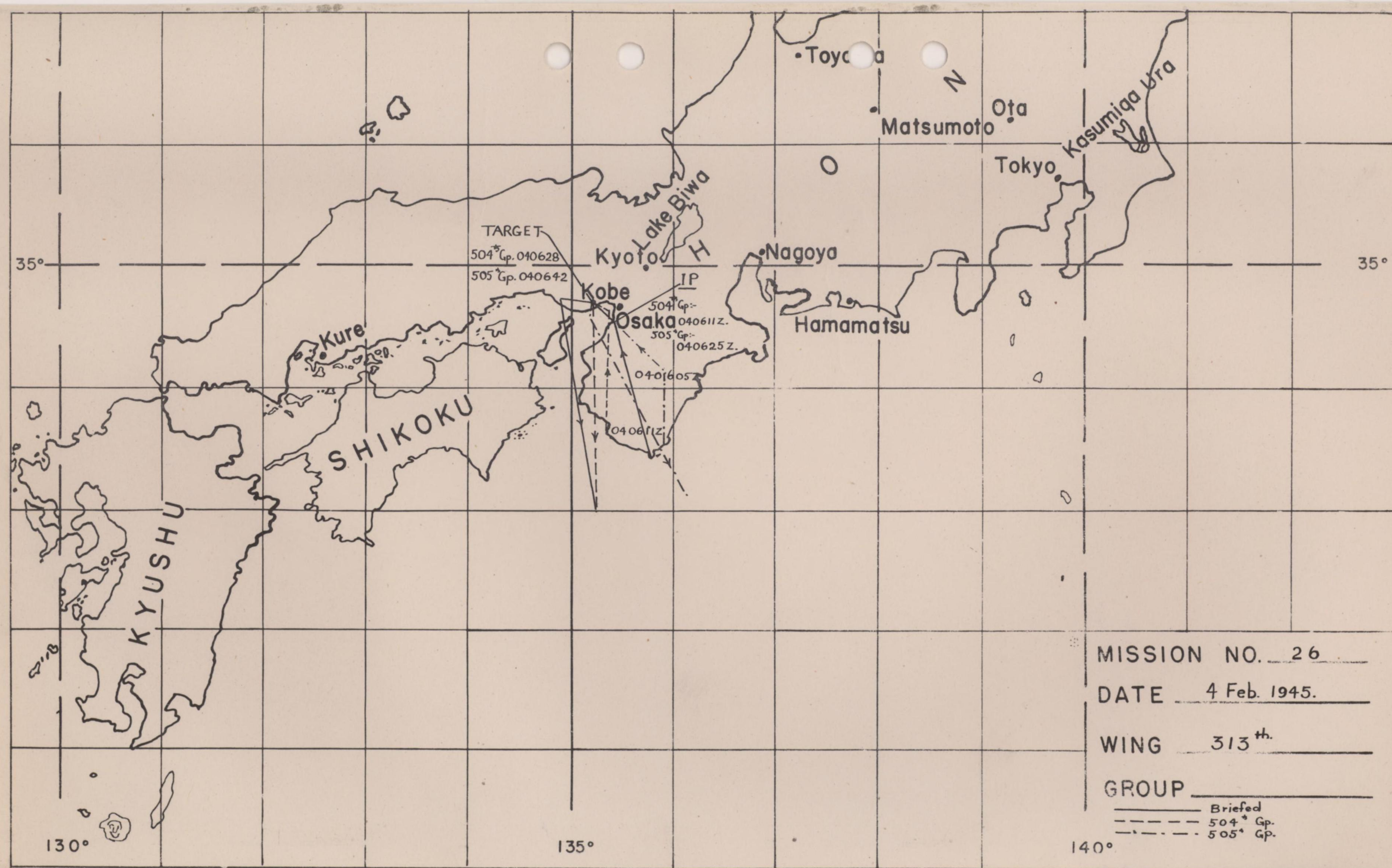
MISSION NO. 26
 DATE 4 Feb. 1945.
 WING 313th
 GROUP _____

Briefed
 504th Gp.
 505th Gp.

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 Authority NM 760063
 By SP-1 NARA Date 9/23



MISSION NO. 26
DATE 4 Feb. 1945.
WING 313th
GROUP _____
—— Briefed
- - - - 504th Gp.
- · - · 505th Gp.

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OPERATIONS REPORTS

PART I - NAVIGATORS REPORT

1. Navigation on this mission was mainly a problem of making proper drift correction in the climb phase. Three groups of the 73rd Wing made landfall as briefed, with the navigator applying a proper additional left correction to compensate for the 30-knot increase in predicted wind velocity. Metro winds were estimated at 290/130 knots and experienced at 270/160 knots.
2. The 500th Group of the 73rd Wing made landfall 50 miles east of course, the initial error having been made in the first phase of the flight before the climb phase. The lead navigator's estimated position of turn was 30 miles east of the briefed turn at 2900N - 13545E. Not being aware of his error in position, the navigator made correction on the assumption he was on the briefed route. His final landfall error was a combination of the initial error and a failure to correct for the increased velocity of the cross-wind experienced in the climb. His radar AN-APQ-13 gave poor returns, and the navigator failed to observe his error in sufficient time to make the necessary correction to the briefed landfall point. Upon discovery of his error, the formation leader attempted to reach Kobe, but the excessive head wind on the due westerly course necessary to reach the target resulted in excessive fuel consumption and the formation turned eastward and bombed the last resort target.
3. The 313th Bombardment Wing navigation was good, considering the excessive wind problem experienced on its first operational mission. Navigators in the 504th Group overcorrected to the west. Navigation errors to the west can be easily corrected on a down wind heading, but errors to the east make corrections to the initial point impossible because of excessive headwinds.
4. The 504th Group made landfall 30 miles west of course and corrected to the initial point. The 505th Group made landfall 10 miles west of briefed point.
5. Navigation in the target area was made with the AN-APQ-13. Crews were still not making proper use of this equipment for the precision navigation necessary in target areas. The initial point was easily distinguishable on the radar scope, but groups failed to pass directly over it as briefed. A program has been instituted to give increased turn and target training to offset the handicaps of high wind velocities.
6. The 313th Wing criticized mission planning and expressed the desire for a down wind run. The high rate of closure with ground speeds up to 500 MPH with the consequent shortening of time for target identification, bombsight, and radar adjustments make upwind runs necessary on all targets, except in cases where the probability of flek damage outweighs the additional possibility of increased bombing accuracy. Criticism was also made of the dog legs to and from the target. Missions are planned to utilize the winds on all routes. During the climb phase, a northerly heading cuts down the effect of westerly headwinds. A southwesterly heading on the route home increases the ground speed and actually diminishes the total time flown.

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7. Navigators in the 313th Wing criticized Loran inaccuracy, but an investigation of the 73rd Wing returns indicate that 313th Wing Navigators need additional training in fix interpretation. The small angle of coincidence of the Guam and Ulith chains make a poor cut, and may result in a 10-mile plotting error.
8. The route home was flown as briefed, with all navigators utilizing the stars and planets during the last 3 hours of flight. The northern Marianas were also utilized as radar check points.
9. The total time to the target averaged 40 minutes late for all units as a result of the increased wind velocities experienced. However, units of the 73rd Wing made use of previous experience in utilizing tail winds at favorable altitudes, and arrived at base with an average total time of 14:12, 4 minutes later than estimated.
10. Units of the 313th Wing were naturally inexperienced in utilizing the most favorable winds and had an average total time of 14:48.

PART II - BOMBARDIER'S REPORT

1. Bombing results on this mission were considered fair, based on the number of aircraft bombing and the predominating eight-tenths cloud over target. The majority of bomb runs and releases were accomplished by radar with short visual checks. In all cases inadequate strike photography made it impossible to construct a bomb plot. However, all visual damage was within 7000 feet of the briefed aiming points, destroying approximately 2,651,000 square feet in the city of Kobe.
2. Errors in bombing were attributed to both personnel and equipment malfunctions. The most prevalent of personnel errors was lack of air discipline. Several instances were noted where aircraft dropped on aircraft other than lead and deputy lead, i.e. when one element leader experienced trouble before reaching the target and dropped his bombs and left formation, both wing men dropped on him and others in the formation dropped also - leaving few effective aircraft in the formation to drop on the lead aircraft at target time. Another aircraft dropped its bombs upon hearing "Bombs Away" over VHF, and again numerous aircraft dropped on him. The "Bombs Away" report heard on VHF was from an earlier formation over the target. The above showed the immediate need for radio bomb releases. (crawfish) A shipment of these releases is en route. One Group, due to a major error in navigation and poor judgment in selecting a target of opportunity, was totally ineffective.
3. Several malfunctions in the A-2 release system necessitated the salvaging of bombs.

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PART III - FLIGHT ENGINEER'S REPORT

A. Comments on cruise control during the mission are as follows:

1. Low Altitude Cruise:

(a) The low altitude cruise to the point of climb required approximately 6½ hours or 10 minutes less than planned for both the 73rd and 313th Wings, which indicates that practically no unexpected wind conditions were encountered on this leg of the flight plan.

(b) The power settings required at the start of the initial cruise were normal for the 73rd Wing. However, some airplanes of the 313th Wing required auto rich power settings for the first half hour during assembly. Subsequent power settings were normal.

2. Climb to Bombing Altitude: The time for climb was approximately 75 minutes, as planned; neither wing required rated power settings to maintain the formation.

3. Cruise at Bombing Altitude:

(a) Because of unexpected head winds, both wings spent approximately 77 minutes at bombing altitude prior to reaching the target. This was 30 minutes longer than planned, and caused the consumption of an additional 350 gallons of fuel per aircraft.

(b) Power settings for both wings in this cruise and on the bombing run were as predicted. In no instance was more than rated power necessary to maintain formation position.

4. Return to Base: Good tail winds aided considerably in saving fuel on the return to base. The two types of maximum range return procedures employed, - Constant Letdown and High Altitude Best Wind - worked equally well.

5. General Comments:

(a) This mission was extremely successful from the standpoint of flight engineering. The only deviation from the predicted fuel consumption was caused by unexpected high altitude wind conditions.

(b) B-29A's were employed for the first time by this Command. Due to the smaller center wing section, these aircraft operate on 200 gallons less fuel. On future missions, these airplanes were to be given the more advantageous positions in the formations.

PART IV - RADAR OFFICER'S REPORT

1. Radar Employment:

1. AN/APQ-13 Blind Bombing:

- 3 -

S E C R E T

S E C R E T

- (a) The radar equipment was used for target area navigation, wind determination, and radar approach to visual bombing and complete radar bombing.
- (b) Radar was employed by 5 lead aircraft, with 44 dropping on them.
2. SCR 718 (Radio Altimeter): Employment was normal.
3. AN/APN-4: Fixes were taken at a maximum of 1000 miles. A majority ranged between 800-900 miles, with one fix being at 1400 miles.
4. SCR-695 (IFF): Employment was normal.
2. Radar Equipment Performance:
1. 73rd Wing:
- (a) 71 A/C were radar equipped.
- (b) 61 A/C reported radar operation satisfactory for bombing.
2. 313th Wing:
- (a) 38 A/C were radar equipped.
- (b) 21 A/C reported radar operation satisfactory for bombing.
- (c) 7 A/C with radar were aborted A/C. Two were due to radar malfunction.

3. Malfunctions:

a. AN/APQ-13:

- (1) Two: No signals at altitude.
- (2) One: Inoperative on return, no data.
- (3) One: Low crystal and transmitter current.
- (4) Three: Transmitter current cut out.
- (5) One: No sweep
- (6) Three: No signals.
- (7) One: Tilt mechanism stuck.

b. AN/APN-4:

- (1) One: No signals.
- (2) One: Unsteady inverter voltage.

c. SCR-718: One Altimeter failure.

d. SCR-695: One IFF reported out.

S E C R E T

PART V - GUNNERY OFFICER'S REPORT

1. The mission from the gunnery standpoint was highly successful. The C.F.C. system was 98% operative and the machine guns were 97% operative. Gunners began to show remarkable improvement in controlling their bursts, use of the interphone, and target designation. The enemy was still using a rainbow of colors with no definite pattern of color scheme in the marking of their aircraft. They respected a tight formation and were not aggressive against such a formation. E/A still favor the nose attack from ten to two o'clock from high, level and below. It was noted on this mission that Tonys, Tojcs and Nicks were the predominant aircraft. These three types of E/A were reported by gunnery observers of the 73rd Wing as letting their gear down, possibly to slow down the rate of closure or to aid further their ramming tactics. Irvings were met 50 miles from landfall and were evidently relaying information to AA batteries on our altitude, airspeed, and direction of flight.

2. Equipment operated as follows:

	<u>73rd Wing</u>	<u>313th Wing</u>	<u>Total</u>
a. 50 cal. Ammunition Expenditure	86,000 rds.	46,000 rds	132,000 rds.
b. Operation C.F.C. System	98%	98%	98%
c. Operation used 50 cal. M.G.	97%	97%	97%
d. Guns loaded	Cold	Hot	

3. Enemy air opposition (See Annex D - Intelligence reports for details).

PART VI - AIR-SEA RESCUE REPORT

A summary of the ditching incident occurring on this mission follows:

a. Aircraft 42-24629, call sign 9V607 - 73rd Bombardment Wing, was ditched on route to base.

(1) First message received by this headquarters at 041506, "A/C 42-24629 ditched approximately 12 miles from Saipan on a bearing of 330 deg. Wing Super-Dumbo, Cyclone 22 (A211), Cyclone 21 (A4) circled ditched aircraft until relieved by Naval Dumbo."

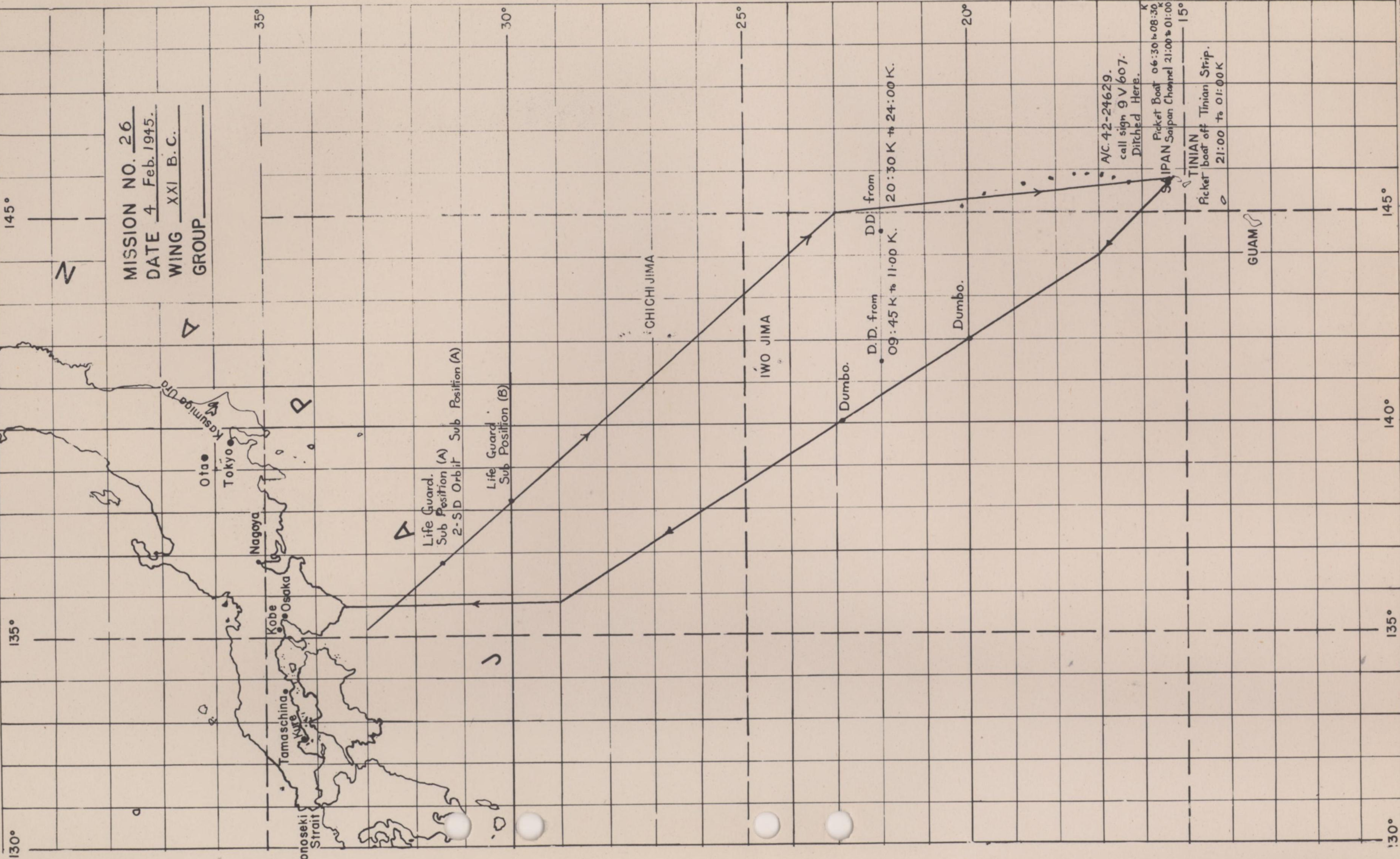
(2) Second message received at 041543, "Ten (10) survivors rescued from ditched aircraft 9V607."

Comment: The rescue facilities available for this mission were on course, but it is believed had this ditching occurred north of Iwo Jima, the possibility of effecting rescue would have been remote. (See Air-Sea Rescue map on following page).

- 5 -

S E C R E T

CONFIDENTIAL



MISSION NO. 26
 DATE 4 Feb. 1945.
 WING XXI B.C.
 GROUP _____

COMPILED BY 35TH PHOTO TECH UNIT

CONFIDENTIAL

DECLASSIFIED
 Authority NM 760063
 By SP-1 NARA Date 9/23

SECRET

ANNEX

B

WEATHER

Mission No. 26

4 February 1945

SECRET

COPIES
B

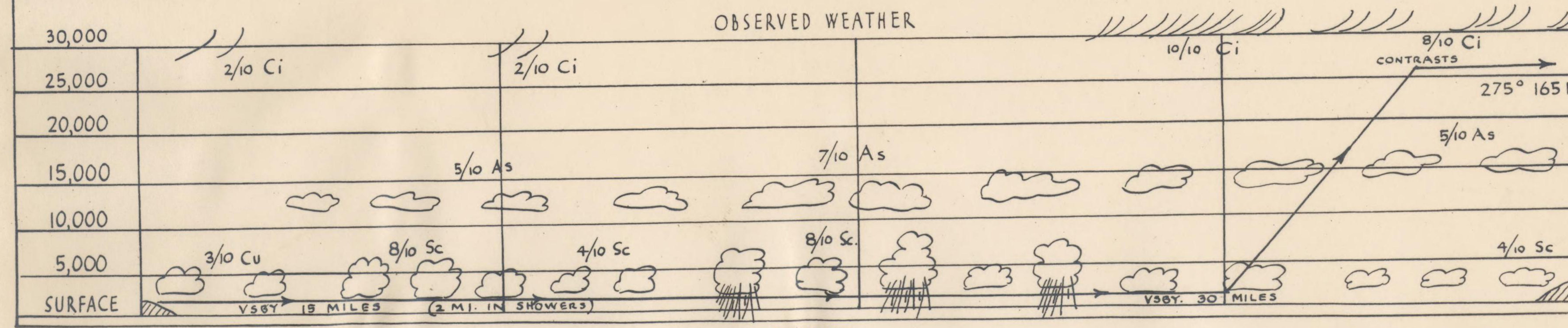
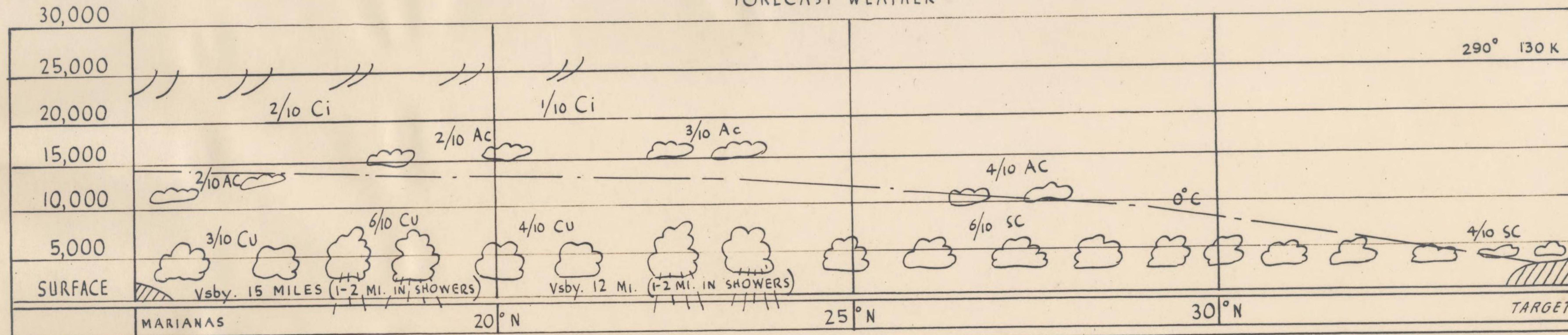
S E C R E T

I WEATHER REPORT

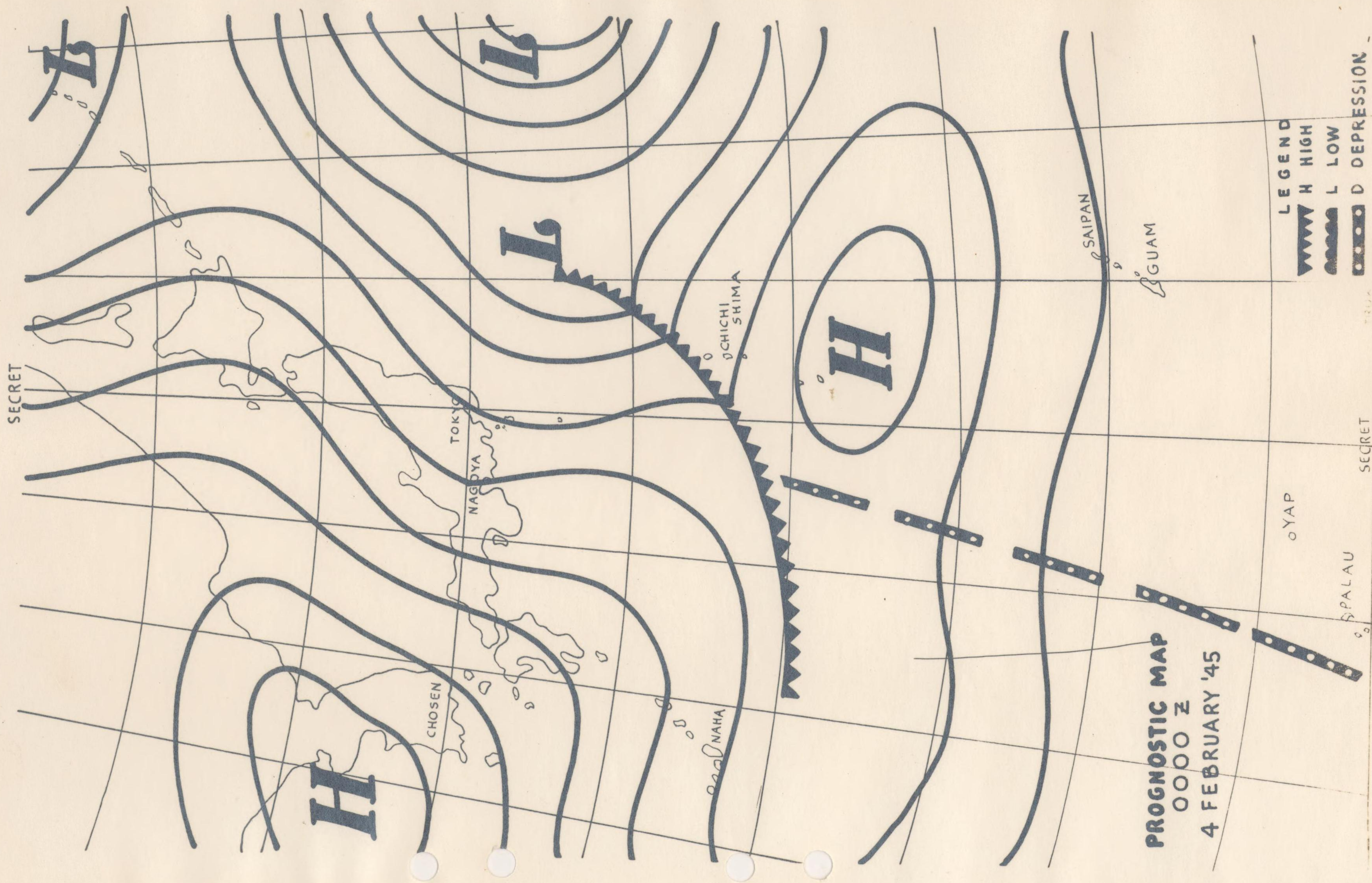
1. This operation was planned on a forecast presented to the Commanding General on 3 February 1945. Three to four tenths cloud coverage was forecast for the target area. The route was forecast to have good weather with a weak front to cross, and the bases were expected to have good weather throughout the day.
2. The bases at take-off had two tenths cumulus with bases at fifteen hundred feet and tops at six thousand feet. Visibility was fifteen miles. These conditions prevailed to nineteen degrees north where cloud cover increased to nine tenths and scattered showers were encountered, reducing visibility to two miles. From this zone to twenty three degrees north there was five tenths stratocumulus with six tenths altocumulus based at twelve thousand feet. Between twenty four degrees and twenty eight degrees north a frontal zone was encountered with overcast cumulus and stratocumulus clouds. Ceilings were twelve hundred feet, lowering to five hundred feet in showers. Eight tenths altostratus was present in this area with bases at twelve thousand feet and a cirrostratus overcast was present at thirty thousand feet. Visibilities in this area were about eight miles, dropping to a mile in showers. From twenty eight degrees north to the target there was five tenths cumulus based at three thousand feet with tops at eight thousand feet; four tenths altostratus based at fifteen thousand feet and eight tenths cirrostratus at thirty thousand feet.
3. The target had six to eight tenths altocumulus cover based at fourteen thousand feet with tops at sixteen thousand feet which necessitated radar bombing with short visual checks.
4. The weather on the route on return was approximately the same as the route out. Base conditions were the same as they had been at take-off time.
5. Winds reported over the target varied from 280 degrees, 145 knots to 280 degrees, 180 knots.

S E C R E T

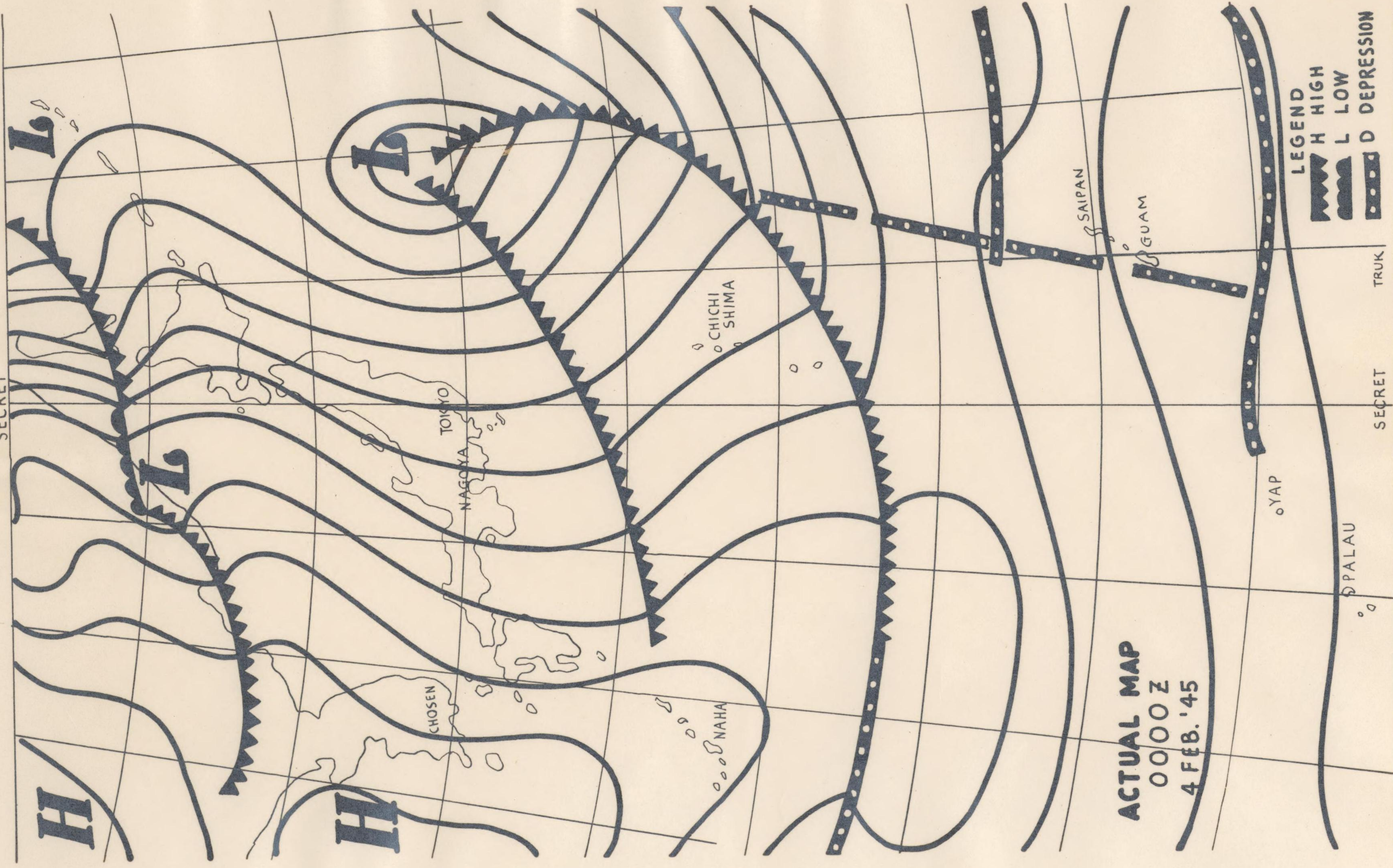
SECRET
ROUTE TO KOBE
4 FEBRUARY '45
 FORECAST WEATHER



SECRET



SECRET



ACTUAL MAP
 0000 Z
 4 FEB. '45

LEGEND
 H HIGH
 L LOW
 D DEPRESSION

TRUK

SECRET

S E C R E T

ANNEX

C

COMMUNICATIONS REPORTS

Part I - Radar Counter Measures

Part II - Communications Officer's Report

Mission No. 26

4 February 1945

S E C R E T

C

S E C R E T

Part I - RADAR COUNTER MEASURES

1. General: Four RCM search aircraft, each with one RCM Observer participated in this mission. Search for Early Warning Radar equipment was accomplished until the mainland was reached, where a search for GCI and GL radars and enemy fighter communications channels was made. Frequencies of 25 to 3000 mc/s were searched.

2. Results:

a. A total of 51 radar signals was logged and 3 enemy VHF voice transmissions were recorded.

b. No D/Fing of any signal was possible due to the lack of suitable antennas.

c. Although flak was generally moderate and inaccurate to accurate, six signals were heard in the general target area which may have been employed for gun laying. These are as follows:

<u>Frequency</u>	<u>Pulse Width</u>	<u>PRF</u>
190 mc	5	1400
198 mc	8	1250
225 mc	3.5	1000
253 mc	5	1400
302 mc	9	1500
307 mc	10	1500

d. No evidence of radar fighter vectoring was discovered.

e. The complete signal intercept log is as follows:

<u>Frequency</u>	<u>PL</u>	<u>PRF</u>	<u>Remarks</u>
92-94	33-45	250	Sweeping
102	31	300	Sweeping
106	14	450	Sweeping
108	50	200	Sweeping
112	54	400	Sweeping
145-146	15-45	250	Sweeping
150	10	200	Sweeping
152	10	200	Sweeping
155	7	1000	Sweeping
186	6	750	Tracking
190	5	1400	Tracking
190	15	250	Sweep rate 1 1/2 RPM
194-198	6-8	1250	Sweep rate 3 RPM
225	3.5	1000	Tracking
253	5	1400	Tracking
303-307	9-10	1500	Tracking
333	45?	----	Sweeping
375	20	300	Tracking
1400	---	---	Sweeping

(2) From Target **S E C R E T**

<u>Frequency</u>	<u>PL</u>	<u>PRF</u>	<u>Remarks</u>	<u>Intercept Location</u>
195	8	1600	Tracking	Sumisu Area
190	12	1500	Tracking	Sumisu Area
160	8	500	Tracking	Volcano Islands
155	5	750	Tracking	Volcano Islands
153	27	250	Tracking	Volcano Islands
150	9	200	Tracking	Volcano Islands
148	30	750	Sweep rate 3 RPM	Volcano Islands
145-147	8-10	250	Tracking	Bonin Islands
106-108	15	1500	Tracking	Bonin Islands
107	29	450	Tracking	Volcano Islands
106	13	1100	Tracking	Volcano Islands
106	40	400	Tracking	Volcano Islands
103	34	1500	Tracking	Sofu Gan
102	20-35	700-1000	Tracking	Sofu Gan
93-94	35	700-800	Sweeping	Sofu Gan
80	40	400-500	Sweep rate 1/3 RPM	Sumisu

(3) To Target

<u>Frequency</u>	<u>PL</u>	<u>PRF</u>	<u>Remarks</u>	<u>Intercept Location</u>
75	30	800	Tracking	33° N-136°E
76	28	240	Tracking	
79	45	1000	Tracking	
82	31	300	Tracking	
94	25	1000	Tracking	
96	6.5	1000	Tracking	
97	30	1200	Tracking	
99	6.5	1000	Tracking	
102	30	500-1000	Tracking	
103	3	700	Tracking	Iwo Jima
104	30	250 E	Sweep rate 2 RPM	
107	15	1000	Sweep rate 1 RPM	
108-110	40-50	300	Tracking	
143	12	500	Sweeping	
147	14	450	Tracking	
150-152	7-8	325-400	Tracking	
151	7	1000-1250	Tracking	
153-155	6	350-850	Sweep rate 1/3 RPM	

f. Enemy jamming on the following communications frequencies was noted:

<u>Frequency</u>	<u>Type Jamming</u>	<u>Effectiveness</u>	<u>Location</u>
11080KC	CW and MVW	50%	Near Bonins
6055	MCW	50%	Near Bonins
3145	CW	10%	Bonins to Base
500KC	CW	--	Over Empire

3. Equipment:

a. No D/F Antennas had been received to date and an insufficient number of C-1C/APA-6X oscillators were available.

b. Two receivers AN/APR-4 and AN/APA-6 pulse analyzers have been borrowed for use by the 313th Bombardment Wing.

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c. Equipment malfunctions on this mission were one AN/APA-6 which eased functioning. This equipment being bench checked.

4. Conclusions:

- a. Photo coverage of this area is incomplete. The available photos have been studied for gun laying radar installations but none have been discovered to date in spite of the possible gun laying radar signals intercepted.
- b. The signal intercepted at 1400 mc/s corresponds to the signal of 1410 mc/s once before reported over the Tokyo Area. Its use is still unknown.
- c. The possibility of constructing a D/F antenna, using a simple horizontal dipole arrangement, shall be investigated by the command.
- d. No signals of Wurtzburg radar characteristics has thus far been intercepted.

PART II - COMMUNICATIONS OFFICER'S REPORT

1. Strike Reports: Aircraft radio operators transmitted eleven Strike Reports (Bombs Away); all were received by the Ground Station. It was directed that, effective with this Field Order, amplified Strike Reports would not be transmitted.

2. Fox Transmissions: Weather encoded in UCOFAC and Time Ticks were transmitted simultaneously on all strike frequencies on the half hour and the hour, respectively. No requests for weather or time ticks were made by aircraft in flight.

3. Frequencies: All strike frequencies were jammed or interfered with at different periods during the mission. The 73rd Wing reported moderate interference on 11080 kcs while aircraft radio operators were transmitting the Bombs Away Reports. During the final hours of the mission, interference became greater on 11080 kcs, while 6055 kcs was clear until approximately four hours before aircraft were due to land. At this time MCW signals caused heavy interference, but aircraft signals were readable through it. Ineffective interference was received by 3145 kcs and the majority of traffic was carried out on this frequency. In a percentage breakdown of traffic per frequency, forty-five per cent was carried out on 3145 kcs; twenty-eight per cent on 11080 kcs, and twenty-seven per cent on 6055 kcs. The 313th Wing reported slight interference on 3410 kcs, 7310 kcs and 11160 kcs.

4. Navigational Aids: The 73rd Wing ground station received forty-seven requests for D/F bearings; forty-three of these were obtained. Aircraft weak signals and priority of urgent bearings over check bearings were the cause for four bearings not being obtained. The 313th Wing ground station received twenty requests for D/F bearings and twenty D/F contacts were completed. All aircraft utilized Radio Range and Homer and reported good results.

5. Net Discipline and Security: Radio silence was maintained to the target on all six strike frequencies. Security for the mission was very good as far as the radio operator was concerned. Only one violation of AR 380-5 was noted. One message sent to the ground station had a code group repeated twice. A violation of

DECLASSIFIED
E.O. 11652, Sec. 3(E) and 5(D) or (E)

By *N/A/D* *TYO/ao*
By *Cep/abj* NARS, Date *Oct 21, 1975*

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S E C R E T

security was noted when the speed, course, and altitude were spoken in the clear on VHF over and near the target.

6. Enemy Transmissions: Kanc code intercepted on all strike frequencies apparently a jumble of letters insofar as American operators are concerned. Ground station was able to work aircraft through enemy transmissions. Aircraft radio operators are not briefed to log jumbo Kanc code.

7. Distress: The ground station received one SOS which was immediately changed to Urgent when the condition of this aircraft improved. This aircraft finally ditched approximately 12 miles from base, with the ground station working the aircraft continuously until it was approximately 500 feet from the water. The aircraft was unable to notify the ground station of the ditching; however, close liaison was affected with the MEW station and the exact position of the downed aircraft was immediately known. Five "Urgent" requests for HF/DF bearings were received by ground stations; all were obtained.

8. Equipment Malfunctions: AN/ART 13: one transmitter with no sidetone, and one transmitter with intermittent short; SCR 522: one inoperative; Trailing wire antennae: one inoperative, one sticking; RC-36: two shorted jack boxes, and three mike buttons sticking; AN/ARN-7: four sense antennae lead-ins broken, one inoperative on "Compass" position, and one inoperative on "antenna" position; BC-348: one antenna grounded and one receiver noisy.

S E C R E T

ANNEX

D

INTELLIGENCE REPORTS

- Part I - Enemy Fighter Action Report
- Part II- Enemy Antiaircraft Fire Report
- Part III-Damage Assessment Report

Mission No. 26

4 February 1945

S E C R E T

D

S E C R E T

INTELLIGENCE REPORTS

PART I - ENEMY FIGHTER REACTION REPORT

A. General

1. Enemy air opposition was strong, 205 enemy aircraft making 273 attacks. However, with the 313th Wing making its first trip to Japan, the size of our B-29 force was increased approximately 50 per cent. Consequently, the average B-29 sustained 2.8 attacks, which is less than average for previous missions. The average Jap fighter made 1.3 attacks, which is about average.

2. One percent (one B-29) of our air force over Japan was lost as a result of ditching caused by enemy fighter attack and 12 per cent (12 B-29's) were damaged by Jap fighters.

B. Location of Attacks: Eighty six per cent of all attacks (a record) were made prior to bombs away. Previous highest percentage of enemy attacks prior to bombs away was 67% which occurred on Mission No. 20, (Akashi). Following is a breakdown of the location of attacks:

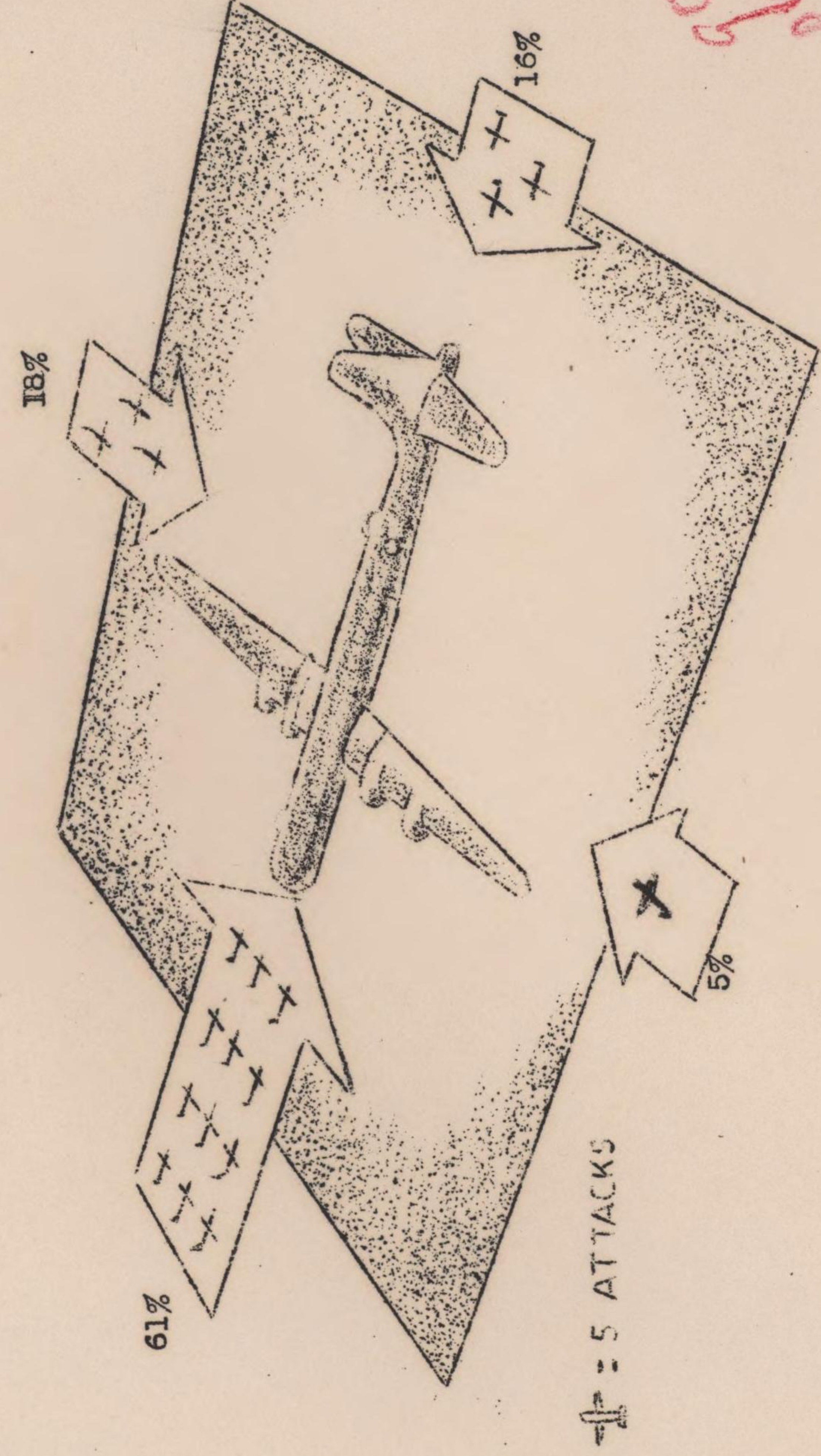
<u>Location</u>	<u>No. of Attacks</u>	<u>Percent of Total Attacks</u>
Prior to Landfall	1	0
After Landfall to Initial Point	102	37
After IP to Bombs Away	134	49
After Bombs Away to Coast	34	13
After leaving Coast	<u>2</u>	<u>1</u>
Total	273	100

C. Type of E/A Attacking: Tojo and Tony made 31 and 30 per cent, respectively, of all of the attacks. On all prior missions, Tojo made 28 per cent of all attacks. The breakdown follows:

<u>Type E/A Attacking</u>	<u>No. of Attacks</u>	<u>Per cent of Total Attacks</u>
Tojo	84	31
Tony	83	30
Zeke	39	14
Zeke 32	10	4
Oscar	10	4
Val	11	4
Irving	10	4
Nick	5	2
Jack	3	1
Frank	1	0
U/I T/E	5	2
U/I S/E	12	4
Total	<u>273</u>	<u>100</u>

S E C R E T

D. Direction of Approach: Nose attacks still predominated. Sixty one per cent of all of the attacks were made from the nose quarter. This is the highest percentage of attacks yet made on any quarter. The following chart shows percentage distribution of attacks on quarter basis:



E. Level of Approach: Forty-one per cent of all of the attacks were made from below, and only 25 per cent of the attacks were made from above. Level attacks accounted for the remaining 34 per cent of all attacks.

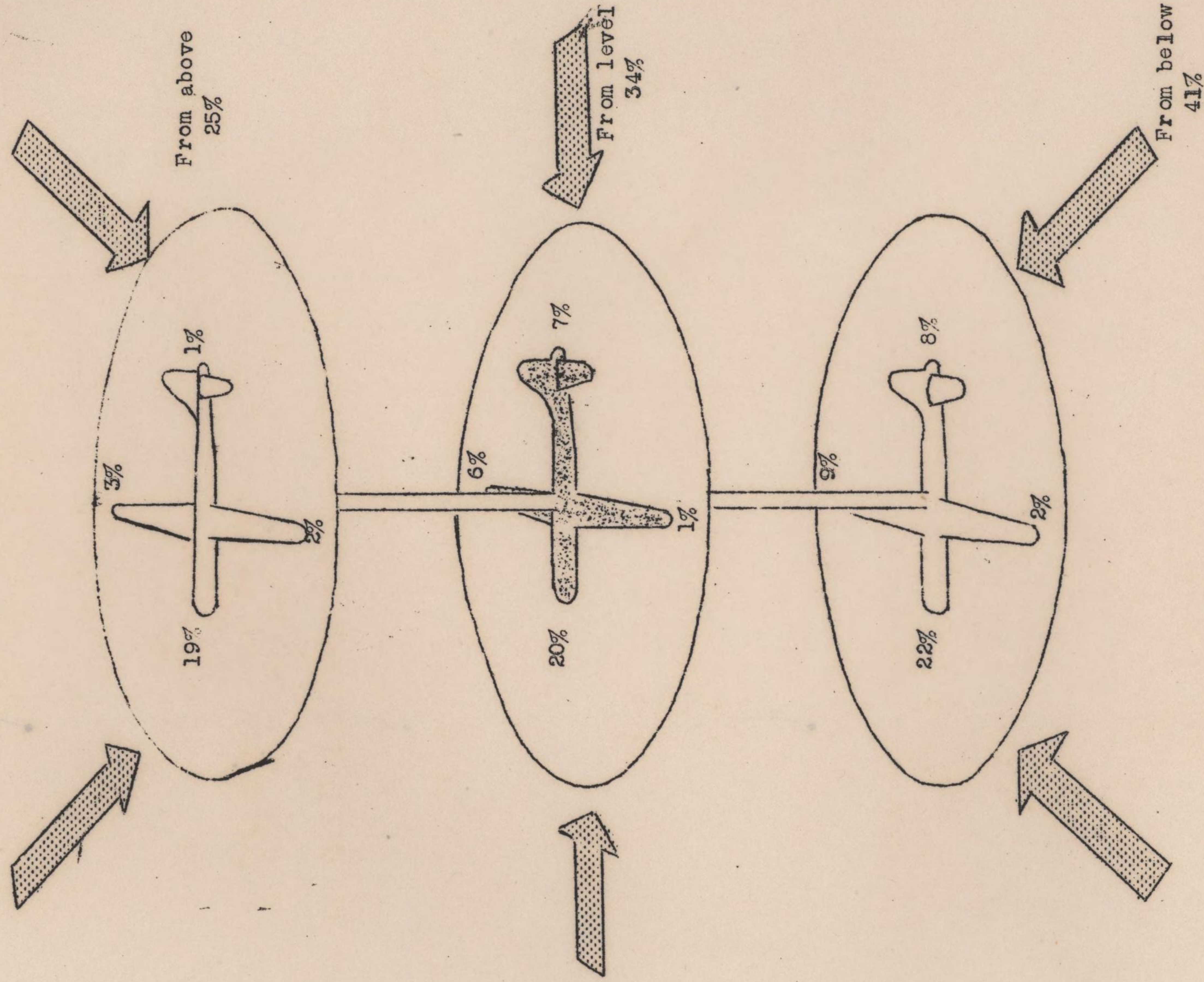
F. Direction and Level of Approach: The nose attacks were almost evenly divided among high, level, and low approaches, being 19, 20, and 22 per cent respectively. Low tail attacks constituted only 8 per cent of all attacks. (See diagram on the following page)

G. Facing: A few E/A met our B-29s at sea and trailed our formations, probably communicating with AA and flight controllers.

H. Coordinated Attacks: There were only five reported coordinated attacks, comprising less than 2 per cent of all attacks. Data is available on two coordinated attacks:

- a. Over IF, at an estimated altitude of 25,500 feet, two Tojos came in abreast, making a frontal attack from above against one of our A/C. These two fighters remained together throughout the attacks.
- b. Over target, at 25,000 feet, two Tonys came in abreast from above at 11 o'clock, let wheels down, pressed closely, and broke away at 3 and 5 o'clock.

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Direction and Level of Approach
of Enemy Fighter A/C

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S E C R E T

I. Ramming or New Type Attack

1. Over the target area, some Tonys, Tojos and Nicks were reported to have lowered their gear just prior to pressing an attack. Observing crews were of the opinion that this technique was to reduce speed or to improve ramming approach effectiveness. Two Irvings were also seen flying abreast, lowering their gear, but making a breakaway before coming within range.

2. One B-29 evaded what was believed to be an attempt at ramming by raising and lowering the nose of the B-29.

J. Breakaways: Halfrolls, dives, split-S's, straight fly-throughs, and turns to left and right were among those reported.

K. Type Enemy Armament and Type Projectiles:

1. Zekes were reported firing heavy MG through props.
2. One Tony was reported as firing a 20-mm cannon through the propeller hub.
3. Two Irvings and one unidentified twin-engine fighter were reported as having nose and wing firing cannon.
4. One Jack was reported as having six guns. This aircraft was not observed until it had pressed its attack to about 150 yards at which time two machine guns (believed to be 7.7) were firing. These two guns were mounted low on the sides of the fuselage at the wing roots.
5. One unidentified S/E going away from a B-29 was seen to fire back from his canopy.

L. Enemy Aircraft Markings

- | | |
|--------|---|
| 2 Zeke | -- Black with orange ball on nose and fuselage. |
| 1 Zeke | -- O.D. with red cowling. |
| 1 Zeke | -- Red wings. |
| 1 Zeke | -- All Silver. |
| 1 Zeke | -- Dark green, rising sun insignia. |
| 1 Zeke | -- Silver, red roundels. |
| 1 Tony | -- All silver. |
| 1 Tony | -- Shiny black, rising sun insignia. |
| 1 Tony | -- Dark in color. |
| 1 Tony | -- Green, red roundels. |
| 4 Tony | -- Four-foot wide crimson band on each wing base color dark green with white belly. |
| 2 Tony | -- Dark brown, red stripe on fuselage. |
| 1 Tony | -- Camouflaged. |
| 1 Tony | -- Entirely black. |
| 1 Tony | -- Silver, red roundels. |
| 1 Tojo | -- Yellow cowling. |
| 7 Tojo | -- Black & White. |
| 4 Tojo | -- All Silver. |
| 1 Tojo | -- Silver with red dots. |
| 2 Tojo | -- Dark green, light colored belly. |
| 1 Tojo | -- Black, Yellow cowling. |

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- 4 Tojo - Dark Green, rising sun insignia.
- 1 Tojo - Dark in color.
- 5 Tojo - Silver, rising sun insignia.
- 1 Tojo - Brown, red roundels.
- 1 Tojo - Entirely Black.
- 1 Tojo - Camouflaged.
- 1 Nick - Black or dark green.
- 1 Irving - Black or dark green.
- 3 Irving - Entirely black.
- 2 Irving - Silver, bright red roundels
- 1 Hamp - Disruptive painting.
- 1 Val - Entirely Black.
- 1 T/E - Entirely Black.
- in-line unidentified
- 1 Mike - Black, German markings.
- 7 Unident - Dark green, rising sun insignia.

M. Claims by Type E/A and by Gun Position

<u>Destroyed</u>	<u>Probably Destroyed</u>	<u>Damaged</u>	<u>Gun Positions</u>
1 Tony			CFC
1 Tony			RSG
1 Tony			TG
1 Irving			RSG
	2 Tony		Bombardier
	2 Tony		TG
	2 Tony		Bombardier & CFC
	1 Tony		R.G.
	1 Irving		RSG
	1 Tojo		Bombardier,
			CFC, R.G.
			CFC, R.G.
			RSG
	1 Tojo		Bombardier
	2 Tojo		Bombardier, R.G.
	2 Zeke		RSG
	1 Zeke		Bombardier
	1 Zeke		R.G.
	1 Zeke 32		CFC
	1 Oscar		Bombardier
	1 Val		TG
	1 U/I		Unknown
		1 Tony	TG
		1 Tony	Bombardier
		1 Tony	Bombardier, RSG
	5 Tony		LG
	2 Tony		TG
	1 Tony		RSG
	1 Irving		RSG, Bombardier
	2 Irving		LG
	1 Irving		RG
	1 Irving		RSG
	2 Tojo		Bombardier
	3 Tojo		TG
	4 Tojo		Bombardier
	2 Tojo		TG
	1 Zeke		Bombardier
	1 Zeke		RSG
	1 Zeke 32		RSG
	1 Zeke 32		Bombardier

S E C R E T

Claims by Type E/A and by Gun Position (cont'd)

<u>Destroyed</u>	<u>Probably Destroyed</u>	<u>Damaged</u>	<u>Gun Positions</u>
		2 Oscar	RSG
		1 Oscar	Bombardier, TG
		1 Val	LG
		1 S/E U/I	LG, TG
		2 U/I	Bombardier
		1 U/I	LG
		1 S/E U/I	Bombardier

PART II - ENEMY ANTI-AIRCRAFT FIRE RETORT

a. From landfall to target heavy flak was encountered by different formations as follows:

1. The 504th Group of the 313th Wing with 12 A/C at 25,200 ft. flying over an undercast ran into meager inaccurate flak at Wakayama.
2. The 505th Group of the 313th Wing went in in two Squadrons.
 - (a) The first squadron flying at 25,500 ft. over an undercast encountered moderate and accurate continuously pointed flak through clouds at Wakayama. The bursts were black, level, behind to ahead. At least one naval vessel was reported in action.
 - (b) The second squadron at 26,000 ft. encountered continuously pointed flak at Shionomisaki. The flak was meager and inaccurate. Black bursts appeared ahead to behind, and 4000 ft. below the formation.
3. The 73rd Wing (497th, 498th, 499th and 500th Groups) first met heavy AA fire at landfall (33° 35'N - 136° 00'E) flying between 25,000 and 27,000 ft. Flak was of predicted concentration and barrage type, meager, and inaccurate. The bursts were level, behind, and to the right.

4. From I. P. to the target heavy flak was moderate, accurate to inaccurate, level to above, and to the right. Naval vessels in Osaka Bay fired bursts which rocked some of the A/C. Both continuously pointed and barrage fire encountered.

5. At target (Kobe) accurate to extremely accurate heavy flak, moderate to intense was met by all formations through undercast of 6/10-9/10. Black bursts were level, ahead to behind; also some white bursts were observed.

6. Three A/C of the 504th Group suffered minor damage; 13 out of 20 A/C of the 505th Group sustained flak damage; 5 out of 39 A/C of the 73rd Wing (1 squadron of the 497th, 2 squadrons of the 498th and 1 squadron of the 499th Group) sustained minor flak damage.

7. The 500th Group bombed Matsuzaka from 26,000 to 27,000 ft. Only two AA bursts were seen.

8. The second squadron of the 499th Group bombed various last resort targets. At Tanabe and Shingu meager, inaccurate flak was reported.

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9. En route to home base the flak was reported by various A/C as follows:

(a) 505th Group reported that on descending turn on withdrawal, after bombs away, both squadrons encountered bursts following the planes down with considerable accuracy.

(b) At Nishi No Shima, at 15,500 ft., meager, inaccurate flak was reported. It was low and trailing. Also 4 to 8 S/L beams were observed which failed to illuminate any of our A/C.

(c) At Iwo Jima meager inaccurate flak was reported at 16,000 to 18,000 ft.

(d) At Akashi the 504th Group reported smaller caliber flak than at other localities.

10. The 73rd Wing reported meager and inaccurate flak at land's end (33° 45'N - 134° 40'E). The bursts were estimated as much as 4000 ft. below the formation.

b. Our Tactics Versus AA - None

c. Air-to-air Bombing and Rockets

1. None observed by the 313th Wing.

2. One A/C of the 73rd Wing, at 26,000 ft. in the vicinity of Kobe reported a phosphorous bomb burst, describing it as a "white umbrella-shaped pattern" approximately 1 mile to the rear of our A/C. The E/A releasing the projectile was not seen.

3. Another B-29 in the same Group reported a large tracer or rocket of reddish color fired from an unobserved E/A in the same general area.

d. Remarks

The wind at bombing altitude was from 280° at 145K, and bombing was generally upwind.

SECRET

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PART III - DAMAGE ASSESSMENT REPORT

KOBE HARBOR AREA
(34/39 N--135/10 E)

Reference Photography:

Pre-strike: 3PR5M 19 1V:27-31; 2:89-107-----20 January 1945.
Pre-strike: 3PR5M 17 1V:41-43; 2:50-55-----18 January 1945.
Post-strike: 3PR5M 33 1V:13-20-----5 February 1945.
Post-strike: 3PR5M 36 2:19-21; 1V:11-15-----6 February 1945.

SUMMARY

This report assesses damage to Kobe following the bomb strike of 4 February 1945.

Visible damage is limited to Target 169, Mitsubishi Heavy Industries, Ltd.; Target 785, Kanegafuchi Soda Industry; Target 11, Kawasaki Locomotive and Car Company, and miscellaneous sections in the vicinity.

All visible damage covers a total area of approximately 2,651,000 sq. ft.

Target 785: 49 percent (about 820,000 square feet) of the plant was destroyed.

Target 169: 2 percent (about 68,000 square feet) of the plant was destroyed.

Target 11: Four small buildings (approximately 22,000 square feet of roof area) were destroyed.

Miscellaneous damage: Areas damaged in small industries, housing and business districts (centered about Targets 169, 785 and 11) total approximately 1,741,000 square feet.

(Note: six-inch photo coverage is complete from Kobe east to 135° 18'. Five-tenths cloud cover partially obscures northern Osaka.)

All annotations in this report refer to print
3PR5M 19 2:89.

TARGET 785: (34/39 N--135/10 E) Kanegafuchi Soda Industry (annotation 1): Approximately 820,000 square feet of the plant area, that part almost completely occupied by buildings, was destroyed. The principal buildings in this target area are of sawtooth-roof construction. The greater part of the damage to the plant is in these buildings. Fire walls in the main buildings were effective in controlling the spread of flames.

S E C R E T

S E C R E T

DAMAGE ASSESSMENT REPORT, Cont'd.

TARGET 169: (34/39 N--135/11 E) Mitsubishi Heavy Industries, Ltd. (annotation 2). Damage to the plant represents only a small part of the total target area. Approximately 68,200 square feet of destruction includes:

About 45,500 square feet gutted in building with original roof area of approximately 79,000 square feet.

Six small buildings destroyed. The buildings covered a total area of approximately 27,700 square feet.

Total damage: approximately 2 percent of the plant destroyed.

TARGET 11: (34/39 N--135/10 E) Kawasaki Locomotive and Car Company (annotation 3). Four small structures have been destroyed. Their total roof area was about 22,000 square feet.

MISCELLANEOUS DAMAGE: The area between Targets 169 and 785 (annotation 4) is filled with housing, office structures, warehouses and small industries. About 1,084,000 square feet of the area has been burned out.

A residential and small business area (annotation 5) has about 205,000 square feet of damaged area.

Fires visible (annotation 6) on 5 February 1945 (3PR5M 33) are still smoking on 6 February 1945 (3PR5M 36), the burned area includes two unidentified industries, one of which may be part of Target 11. The area damaged covers approximately 356,000 square feet. Further spread of the fire appears improbable.

A fire visible (annotation 7) on 5 February 1945 (3PR5M 33) is still smoking the next day (3PR5M 36). The destroyed area in this small unidentified industry covers about 23,500 square feet. Further spread of the fire appears improbable.

A residential or business area (annotation 8) has an area of approximately 73,000 square feet destroyed.

A small building (annotation 9) on the waterfront in the north part of Target 169 has been almost completely burned out. The damage is visible on the original photo coverage of the area. It is possible that this damage is the result of weather-strike missions. Several surrounding buildings show possible damage. Lack of comparative photography in this area prevents positive assessment.

Print 3PR5M 19 - 2:89 annotated and attached.
Print 3PR5M 36 - 2:20 attached.

S E C R E T

34-39 N-135-11-10
34-39 N-135-10-10
34-39 N-135-11-10

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Authority NND 760063
By SP-1 NARA Date 9/23



MISSION NO. 19
KOBE



MISSION NO. 36

KOBE

S E C R E T

ANNEX

E

CONSOLIDATED STATISTICAL SUMMARY

Mission No. 26

4 February 1945

S E C R E T

E

S*E*C*R*E*T

XXI BOMBER COMMAND

CONSOLIDATED STATISTICAL SUMMARY OF COMBAT OPERATIONS

FORM 34

MISSION NO 26

4 FEBRUARY 1945

PRIMARY TARGET: KOBE, JAPAN (MIDDLEMAN #1)

Effectiveness of Mission

Aircraft Airborne 110
Percent of Aircraft on Hand 52%
Aircraft Bombing Primary 69
Percent of Aircraft Airborne 63%
Aircraft Bombing All Targets 99
Percent of Aircraft Airborne 90%
Bombs Dropped on All Targets 251 Tons
Enemy Aircraft Destroyed 4

Cost of Mission

Aircraft Lost 2
Percent of Aircraft Airborne 2%
Aircraft Damaged 35
Percent of Aircraft Airborne 32%
Crew Member Casualties 6
Percent of Total Participating 5%

S*E*C*R*E*T

33rd Statistical Control Unit

DECLASSIFIED
Authority AM760063
By SP-NARA Date 9/23

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MISSION 26 (Middleman #1)

AIRCRAFT PARTICIPATING

DATE 4 February 1945

UNIT	A/C ON HAND	A/C SCHEDULED	A/C FAILING TO TAKEOFF	A/C AIRBORNE	TIME OF TAKEOFF			TIME OF RETURN			A/C BOMBING PRIMARY TARGET	A/C BOMBING SECONDARY TARGET	A/C BOMBING L.R.&T.O.	TOTAL A/C EFFECTIVE	TOTAL A/C NON-EFFECTIVE
					DATE	FIRST	LAST	DATE	FIRST	LAST					
497	38	12	0	12	3 Feb	2056Z	2101Z	4 Feb	1104Z	1220Z	10	-	1	11	1
498	37	24	1a	23	"	2104Z	2116Z	"	1135Z	1257Z	19	-	3	22	1
499	38	21	1b	20	"	2118Z	2128Z	"	1112Z	1302Z	8	-	11	19	1
500	40	18	1c	17	"	2129Z	2137Z	"	1138Z	1217Z	-	-	15	15	2
73rdWG	153	75	3	72	3 Feb	2056Z	2137Z	4 Feb	1104Z	1302Z	37	-	30	67	5
504	23	14	0	14	3 Feb	2143Z	2155Z	4 Feb	1225Z	1250Z	12	-	-	12	2
505	34	26	2d	24	"	2129Z	2142Z	"	1240Z	1317Z	20	-	-	20	4
313 WG	57	40	2	38	3 Feb	2129Z	2155Z	4 Feb	1225Z	1317Z	32	-	-	32	6
TOTAL	210	115	5	110	3 Feb	2056Z	2155Z	4 Feb	1104Z	1317Z	69	-	30	99	11

a. Inverter relay out.

b. 150 RPM - drop left Mag #1 engine

e. #4 engine cut out, magneto distributor.

d. 1 A/C inverter relay out because of internal short in coil.

1 A/C #1 engine would not start because of fouled spark plugs.

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MISSION 26 (Middleman #1)
 DATE 4 February 1945

BREAKDOWN OF ALL AIRCRAFT FAILING TO BOMB PRIMARY TARGET

UNIT	MECHANICAL FAILURE			PERSONNEL ERROR			FLIGHT CONDITIONS			ENEMY ACTION			OTHER		
	Non-Effective	Bombed Secondary	Bombed Other	Non-Effective	Bombed Secondary	Bombed Other	Non-Effective	Bombed Secondary	Bombed Other	Non-Effective	Bombed Secondary	Bombed Other	Non-Effective	Bombed Secondary	Bombed Other
497	1 a.	-	1 b.	-	-	-	-	-	-	-	-	-	-	-	-
498	1 c.	-	-	-	-	2 e.	-	-	-	-	-	-	-	-	1 d.
499	1 f.	-	5 g.	-	-	5	-	-	-	-	-	-	-	-	1 h.
500	2 i.	-	-	-	-	15 j.	-	-	-	-	-	-	-	-	-
73 wing	5	-	6	-	-	22	-	-	-	-	-	-	-	-	2
504	1 k.	-	-	-	-	-	-	-	-	-	-	-	1 l.	-	-
505	3 m.	-	-	-	-	-	-	-	-	-	-	-	1 n.	-	-
73 wing	4	-	6	-	-	-	-	-	-	-	-	-	2	-	-
TOTAL	9	-	6	-	-	22	-	-	-	-	-	-	2	-	2

- a. #14 push rod broken #2 Engine.
- b. Ran short of fuel due to lack of power in #4 engine. Left formation and bombed Cwage.
- c. Turbo failure.
- d. Damaged by friendly A/C. Left formation at I.P.
- e. Accidental release at I.P. Bombardier error.
- f. Turbos out on all 4 engines.
- g. 2 A/C prop governor malfunction.
1 A/C oil leak #3 engine.
1 A/C lost engine.
1 A/C fuel booster pump failure.
- h. Fuel shortage, reason unknown.

- i. Blown cylinder #1 engine, oil leak. Bomb doors malfunction.
- j. Faulty navigation.
- k. 4 spark plugs ineffectual - distributor and finger covered with moisture.
- l. Returning spare.
- m. 1 A/C excess oil leak #4 engine.
1 A/C fuel leak in transfer system.
1 A/C oil leak from loose hose clamp on push rod housing
- n. Returning spare.

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MISSION 26 (Middleman #1)

BOMBING RUN

DATE 4 February 1945

UNIT	TARGET BOMBED		A/C DROPPING BOMBS	TIME OF RELEASE		ALTITUDE OF RELEASE		VISUAL BOMBING			RADAR BOMBING		A/C OPERATED BY:	
	NAME OF TARGET	TYPE		Earliest	Latest	Lowest	Highest	A/C Sighting For:		A/C Dropping on Lead A/C	A/C Bombing by Radar	A/C Dropping on Lead A/C	C-1	Manual
								R & D	Range					
497	Kobe, Japan	P	10	0557 Z	0600 Z	24500	26250	-	-	-	1	9	1	9
	Owase	LR	1	0542 Z	-	25375	-	1	-	-	-	-	-	1
498	Kobe, (Urban Areas)	P	19	0600 Z	0604 Z	24700	26500	-	-	-	2	17	2	17
	Otsu	TO	3	0555 Z	-	26000	-	-	-	-	2	1	0	3
499	Kobe	P	8	0629 Z	0631 Z	25900	27000	1	1	6	-	-	2	6
	Kushimoto, Koya, Shingu, Tanabe, Wakayama	LR	10	0542 Z	0625 Z	25000	27000	5	-	2	3	-	2	8
	Pagan	TO	1	0420 Z	-	10000	-	1	-	-	-	-	1	-
500	Matsuzaka	LR	15	0604 Z	0604 Z	26300	26700	1	1	13	-	-	1	14
73 WING	Kobe	P	37	0557 Z	0631 Z	24500	27000	1	1	6	3	26	5	32
504	Kobe	P	12	0628 Z	0630 Z	25000	25000	1	-	11	-	-	1	11
505	Kobe	P	20	0642 Z	0656 Z	25500	26000	-	-	-	2	18	2	18
313 WING	Kobe	P	32	0628 Z	0656 Z	25000	26000	1	-	11	2	18	3	29
TOTAL	Kobe	P	69	0557 Z	0656 Z	24500	27000	2	1	17	5	44	8	61

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MISSION NO. 26 (Middleman #1)

DISPOSITION OF BOMBS

DATE 4 February 1945

Unit	Type & Weight of Bomb	Fuze Setting		Loaded on Airborne Aircraft		RELEASED ON TARGETS						Jettisoned		Returned		Unknown	
						Primary - Kobe		Secondary		Last Resort & T. O.							
						No.	Tons	No.	Tons	No.	Tons						
497	E28 - 500 I Clu.	See Note		192	32	154	25.7	-	-	22	3.7	16	2.6	-	-	-	-
	T4E4 - 500 F Clu.			12	2.4	10	2.0	-	-	1	.2	1	.2	-	-	-	-
498	E-28 - 500 I Clu.			368	61.3	297	49.5	-	-	40	6.7	31	5.1	-	-	-	-
	T4E4 - 500 F Clu.			23	4.6	19	3.8	-	-	3	.6	1	.2	-	-	-	-
499	E28 - 500 I Clu.			320	53.3	96	16.0	-	-	128	21.3	96	16.0	-	-	-	-
	T4E4 - 500 F Clu.			20	4.0	8	1.6	-	-	11	2.2	1	.2	-	-	-	-
500	E28 - 500 I Clu.			274	45.7	-	-	-	-	242	40.3	31	5.2	1	.2	-	-
	T4E4 - 500 F Clu.			17	3.4	-	-	-	-	15	3.0	2	.4	-	-	-	-
73 Wing	E28 - 500 I Clu.			1154	192.3	547	91.2	-	-	432	72.0	174	28.9	1	.2	-	-
	T4E4 - 500 F Clu.			72	14.4	37	7.4	-	-	30	6.0	5	1.0	-	-	-	-
504	E28 - 500 I Clu.			182	30.3	156	26.0	-	-	-	-	26	4.3	-	-	-	-
	T4E4 - 500 F Clu.			13	2.6	11	2.2	-	-	-	-	2	.4	-	-	-	-
505	E28 - 500 I Clu.	See Note		312	52.0	252	42.0	-	-	-	-	47	7.8	13	2.2	-	-
	T4E4 - 500 F Clu.			24	4.8	20	4.0	-	-	-	-	3	.6	1	.2	-	-
313 Wing	E28 - 500 I Clu.			494	82.3	408	68.0	-	-	-	-	73	12.1	13	2.2	-	-
	T4E4 - 500 F Clu.			37	7.4	31	6.2	-	-	-	-	5	1.0	1	.2	-	-
TOTAL	E28 - 500 I Clu.			1648	274.6	955	159.2	-	-	432	72.0	217	41.0	14	2.4	-	-
	T4E4 - 500 F Clu.			109	21.8	68	13.6	-	-	30	6.0	10	2.0	1	.2	-	-

NOTE: FRAGS set to open 1000 feet below formation.
 INCEND set to open 5000 feet above ground.

* 25 bombs dropped safe on primary and 48 bombs dropped safe on last resort and T.O. included in this figure.

Avg Bomb Load per A/C for each group: 73 Wing: 16 Incendiary clusters and 1 Frag cluster.
 313 Wing: 13 Incendiary clusters and 1 Frag cluster.

SECRET

S E C R E T

MISSION No. 26 MIDDLEMAN #1
DATE 4 February 1945

ACCURACY OF BOMBING ON PRIMARY TARGET

UNIT	BOMBS RE- LEASED ON TARGET		NUMBER OF HITS & DISTANCE FROM AIMING POINT										NO. OF HITS ON TARGET	PERCENT OF BOMBS RELEASED
			0 - 500'		500 - 1000'		1000 - 2000'		2000 - 3000'		TOTAL			
	NO.	TONS	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%		
73 & 313 Wings	1023	172.8												
<p>Because of type of bombs used and lack of photo coverage, hits could not be spotted.</p> <p>Photo's from 1 squadron of 73rd Wing show 50 fires between 4000 and 7000 feet from A.P.</p> <p>All bombs of 504th Group observed to drop on the target area</p>														

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DECLASSIFIED
Authority AM76003
By SP-NARA Date 9/23

S E C R E T

MISSION NO. 26 (Middleman #1) DATE: 4 Feb 1945

AIRCRAFT LOST AND DAMAGED * PERSONNEL CASUALTIES

	AIRCRAFT LOST						AIRCRAFT DAMAGED							PERSONNEL CASUALTIES						
	E/A Over Tar.	CRASHED			OTHER	TOTAL	E/A	Flak	E/A & Flak	Acc. & Mech	Own Guns	Other	Un- known	Total -		Total Expos.	Kill- ed	Wound- ed & Injd.	Miss- ing	Total Casual.
		E/A	Acc. & Mech	Un- known										Major	Minor					
497	-	-	-	-	-	3	1	-	-	-	-	-	-	4	136	-	-	-	-	
498	-	1a	-	-	1b	5	-	-	-	-	-	-	1	4	255	1	4	-	5	
499	-	-	-	-	-	2	4	-	-	-	-	-	-	6	229	-	1	-	1	
500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	191	-	-	-	-	
73d Wing	-	1	-	-	1	2	10	5	-	-	-	-	1	14	811	1	5	-	6	
504	-	-	-	-	-	2	3	-	-	-	-	-	-	5	157	-	-	-	-	
505	-	-	-	-	-	-	13	-	-	2	-	-	-	15	255	-	-	-	-	
313 Wing	-	-	-	-	-	2	16	-	-	2	-	-	-	20	412	-	-	-	-	
TOTAL	-	1	-	-	1	2	12	21	-	2	-	-	1	34	1223	1	5	-	6	

- a. One engine shot out by enemy action over target. Lost another engine near Iwo Jima. Ran out of fuel 15 miles from Saipan and crash landed.
- b. #1 engine caught fire and burned after landing at Saipan. Wing section also damaged. Lost to survey.

S E C R E T

SECRET

MISSION 26 (Middleman #1)
 DATE 4 February 1945

ENEMY OPPOSITION AND AMMUNITION EXPENDITURES

UNIT	NO. OF E/A ENCOUNTERED	ATTACKS BY E/A	ENEMY A/C DESTROYED & DAMAGED				AMMUNITION EXPENDITURES					
			TYPE OR MODEL	DES- TROYED	PROB. DESTROYED	DAMAGED	20 M. M.			.50 CALIBER		
							FIRED	ON LOST A/C	TOTAL	FIRED	ON LOST A/C	TOTAL
497	60	84		-	1	10	100	-	100	29147	-	29147
498	40	69		3	2	11	-	-	-	16820	6000	22820
499	40	36		-	2	7	-	-	-	28078	-	28078
500	10	4		-	-	-	-	-	-	12757	-	12757
73d Wing	125	193		3	5	28	100	-	100	86802	6000	92802
504	15-20	34		0	5	1	-	-	-	12326	-	12326
505	50-70	46		1	10	10	-	-	-	33663	-	33663
313 Wing	65-90	80		1	15	11	-	-	-	45989	-	45989
TOTAL	205	273		4	20	39	100	-	100	132791	6000	138791

Val	-	1	1
Zeke	-	4	2
Tojo	-	4	11
Tony	3	7	11
Oscar	-	1	3
Irving	1	1	5
Hamp	-	1	2
S/E	-	1	4

SECRET

S E C R E T

MISSION 26 (Middlemen #1)

DATE: 4 February 1945

FUEL CONSUMPTION & FLIGHT DATA

A/C COMPLETING MISSION	497 Gp 11	498 Gp 21	499 Gp 16	500 Gp 16	73 Wing 64
<u>WEIGHT DATA</u>					
Avg Basic Wt. of A/C					
Avg Fuel Loaded (Gals.)					
Avg Bombs Loaded (Lbs.)					
Avg Gross Wt. at Take off					
<u>FLIGHT DATA</u>					
Avg Time at Low Altitude	6:50	6:37	6:40	6:11	6:33
Avg Time of Climb to Bombing Altitude	1:15	1:10	1:10	1:23	1:14
Avg Time at Bombing Altitude	1:00	1:13	1:35	1:25	1:19
Avg Flying Time	14:39	14:52	15:00	14:27	14:45
Avg Distance Flown (Nautical Air Miles)	2845	2864	3001	2872	2899
<u>FUEL CONSUMPTION</u>					
Consumed to Target:					
Average	4860	4670	4671	4645	4669
Maximum	5111	5100	5131	4875	5131
Minimum	4355	4390	4261	4470	4261
Consumed From Target To Base: (A/C Without Malfunction)					
Average	1996	2006	1912	1972	-
Maximum	2233	2330	2116	2100	-
Minimum	1647	1731	1315	1676	-
Consumed from Target to Base: (A/C With Malfunction)					
Average	-	-	1878	2131	-
Maximum	-	-	2078	-	-
Minimum	-	-	1643	-	-
Total Fuel Used:					
Average	6693	6693	6570	6615	6633
Maximum	6913	7108	6990	6845	7108
Minimum	6255	6380	6060	6213	6060
Total Fuel Remaining:					
Average	548	737	819	785	737
Maximum	1105	1020	1390	1187	1187
Minimum	1	292	360	555	1
Avg Gals. Fuel Consumed per Hour	456.9	448.1	438.0	457.8	449.4
Avg Gals. Fuel Consumed per Mile	2.35	2.33	2.19	2.30	2.29
TOTAL FUEL CONSUMED AND LOST ON AIRBORNE AIRCRAFT	77935	153017	113797	109721	454470

SEE WEIGHT DATA SHEET

* Data for all A/C completing mission is not available. Averages are based on the missions shown under each group as completing mission. However, Total Fuel Consumed and Lost is based on all airborne aircraft.

S E C R E T

SECRET

MISSION 26 (Middleman #1)

DATE 4 February 1945

FUEL CONSUMPTION & FLIGHT DATA

A/C COMPLETING MISSION	504 Gp 12	505 Gp 20	313 Wg 32	XXI B. C. 96
<u>WEIGHT DATA</u> Avg Basic Wt. of A/C Avg Fuel Loaded (Gals.) Avg Bombs Loaded (Lbs.) Avg Gross Wt. at Take off			SEE WEIGHT DATA SHEET	
<u>FLIGHT DATA</u> Avg Time at Low Altitude Avg Time of Climb to Bombing Altitude Avg Time at Bombing Altitude Avg Flying Time Avg Distance Flown (Nautical Air Miles)	6:30 1:10 1:13 14:47 2760	6:27 1:27 1:08 14:54 2850	6:29 1:21 1:10 14:51 2816	6:32 1:16 1:16 14:48 2871
<u>FUEL CONSUMPTION</u> Consumed to Target: Average Maximum Minimum Consumed From Target to Base: A/C without Malfunction) Average Maximum Minimum Consumed From Target to Base: (A/C With Malfunction) Average Maximum Minimum Total Fuel Used: Average Maximum Minimum Total Fuel Remaining: Average Maximum Minimum Average Gals. Fuel Consumed Per Hour Average Gals. Fuel Consumed Per Mile	4712 4994 4304 2005 1786 2109 NONE 6692 7036 6398 708 1027 389 452.8 2.42	5031 5423 4621 1904 2096 1644 NONE 6840 7301 6448 560 952 99 459.1 2.4	4912 5423 4304 1942 1786 1644 NONE 6786 7301 6398 616 1027 99 456.7 2.41	4750 5423 4261 - - - - - - 6683 7301 6060 696 1187 1 451.8 2.33
TOTAL FUEL CONSUMED AND LOST ON AIRBORNE AIRCRAFT	80304	143338	223642	678112

* Data for all A/C completing mission is not available. Averages are based on the missions shown under each group as completing mission. However, Total Fuel Consumed and Lost is based on all airborne aircraft.

SECRET

S E C R E T

MISSION 26 (Middleman #1)

WEIGHT DATA

DATE - 4 February 1945

UNIT	A/C COMPLETING MISSION	AVERAGE BASIC WT. OF A/C	AVERAGE USEFUL LOAD	AVERAGE NO OF BOMBS LOADED	*AVERAGE WT OF BOMBS LOADED	AVERAGE FUEL LOADED	AVG WT OF FUEL LOADED (6 LBS PER GAL)	AVERAGE MISC WEIGHT	AVERAGE GROSS WEIGHT AT TAKE OFF
497	11	75593	57099	16 E28 IClu	6030	7241	43446	7623	132692
498	21	76000	57000	1 T4E4 F clu	6030	7400	44400	6570	133000
499	16	75330	58472	Per Group	6030	7389	44334	8108	133802
500	16	76000	57156		6030	7400	44400	6726	133156
73 WING	64	75762	57425		6030	7370	44220	7175	133187
504	12	75075	58055	13 E28 IClu	4980	7425	44550	8525	133130
505	20	74500	57100	1 T4E4 F Clu per group	4980	7400	44400	7720	131600
313 WING	32	74716	57458		4980	7409	44454	8024	132174
TOTAL	96	75414	57435		5680	7383	44298	7457	132849

*E-28 - 500# Incendiary cluster = 350# (actual weight) T4E4 - 500# Frag cluster = 430# (actual weight)
 NOTE: Bombs weight supplied by Chemical and Ordnance section of XXI Bomber Command.

S*E*C*R*E*T

S E C R E T

ANNEX

F

FIELD ORDERS

Mission No. 26

4 February 1945

S E C R E T

F

S**E*C*R**E*T

XXI Bomber Command
APO 234
31 January 1945

FIELD ORDER 22, Middleman No 1.

1. Information:

A. Friendly

(1) Air

(a) CTF 93 will provide air defense of the operating bases.

(b) Dumbo Service: To follow.

(2) Naval

(a) Lifeguard Submarine: To follow.

(b) Destroyer: To follow.

B. Enemy

(1) Aircraft: Approximately 228 operational enemy fighters are known to be in the Kobe-Nagoya Area.

(2) Anti-Aircraft: There are 71 heavy Anti-Aircraft guns in Kobe-Osaka Area within effective range of planned route to target.

2. Decision: The XXI Bomber Command will attack targets designated below on "D" Day.

3. Instructions to units.

A. 73rd Wing Objectives:

PRIMARY TARGET

port and built up urban area of the city of Kobe: Objective folder 90.25 Map M-9

AIMING POINT
to follow

SECONDARY TARGET: None

LAST RESORT: Any industrial city

FORCE REQUIRED: 7 Squadrons

B. 313th wing Objectives:

PRIMARY TARGET

port and built up urban area of the city of Kobe: Objective folder 90.25 Map M-9

AIMING POINT
to follow

SECONDARY TARGET: None

LAST RESORT: Any industrial city

FORCE REQUIRED: 3 Squadrons

C. Scheme of Maneuver:

(1) Method of attack: By squadrons in column, attacking with a minimum time interval between combat squadrons. The primary target will be attacked by visual bombing methods if possible and b. radar bombing methods if necessary.

(2) Axis and altitude of attack: 248° True at a base altitude of 25,000 feet.

-1-

S**E*C*R**E*T

S*E*C*R*E*T

XXI Bomber Command
APO 234

- (3) Time control: The first combat group of the 73rd Wing will leave the departure point at "H" Hour. The first combat group of the 313th Wing will leave the departure point at approximately "H" Hour plus 45 minutes.

D. Routes - 73rd and 313th Wings.

Base
17°00'N 144°00'E (Departure Point)

29°00'N 135°45'E

34°45'N 135°53'E

34°51'N 135°36'E (IP)

Target

33°00'N 135°15'E

23°00'N 145°00'E

Base

- X. (1) "D" Day and "H" Hour: To follow.
- (2) Bomb Load:
73rd Wing - Maximum load possible. A minimum load of 6,000 lbs, type E28, aimable incendiary cluster fused to open at 5,000 ft will be carried. Each aircraft will carry one 500 lb T4E4 frag cluster fused to open 1,000 feet below the aircraft.
313th Wing - Each aircraft will carry a minimum of 5,000 lbs of same type bombs specified for 73rd Wing

- (3) Intervolometer setting: 500 feet.

4. Supply and Administration:

A. Emergency landing fields:

(1) Isley No 2, Saipan

(2) West Field, Tinian

(3) Navy Agaña, Guam

(4) Depot Field, Guam

5. Communications:

- A. SOP XXI Bomber Command will govern the use of radio aid to navigation and use of radio for reporting purposes.

B. Operational Air-Ground Station:

(1) 73rd Bombardment Wing call sign 00V530

(2) 313th Bombardment Wing call sign 00V535

BY command of Major General LEMAY:

LEMAY
C.G.

OFFICIAL:

WILSON
D/OPNS

-2-

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XXI Bomber Command
LPO 234

CONSOLIDATED AMENDMENTS FOR FO #22

MIDDLEMAN 1

Amendment 1: a. Par 3 A to read:

A. 73rd Wing Objectives

PRIMARY TARGET

AIMING POINT

FORCE REQUIRED

2 Squadrons

2 Squadrons

3 Squadrons

90.25

Zone 1 of Map M-9

139137

106136

079132

Aiming point reference on XXI Bomber Command Litho Mosaic

Number 90.25 - urban.

SECONDARY TARGET - None

LAST RESORT - Any industrial city

FORCE REQUIRED - 7 Squadrons

b. par 3 B to read:

B. 313th Wing objectives

PRIMARY TARGET

AIMING POINT

FORCE REQUIRED

3 Squadrons

074125

Map M-9

Aiming point reference on XXI Bomber Command Litho Mosaic

Number 90.25 - urban.

SECONDARY TARGET - None

LAST RESORT - Any industrial city

FORCE REQUIRED - 3 Squadrons

c. par 3. X (4) to read.

(4) Bombing instructions: Prevailing surface winds over the target area are from the west north-west. In order to prevent smoke from preceding attacks obscuring the aiming points for succeeding attacks the aiming points will be attacked in the following order:

1. 139137

2. 106136

3. 079132

4. 074125

Amendment 2: a. Change par 3X(3) to read; intervalometer settings: Maximum.

Amendment 3: a. Change par 3X(2) to read:

X (2)

Bomb Load:

73rd Wing: Minimum acceptable for all A/C will be 6,000 lbs. This does not preclude, however, loading A/C above minimum consistent with safety, ability of the individual combat crew, and known characteristics of the individual A/C. Each A/C: Type E-28, Aimable incendiary cluster fused to open at 5,000 ft and one 500 lb T4E4 frag eluste fuse to open 1,000 ft below the aircraft. The frag bomb will be loaded so as to drop first.

313th Wing: Each A/C will carry a minimum of 5,000 lb of same type of bomb load specified for 73rd Wing.

b. Add to par 3X: (5) The frag bomb will be loaded to drop first. Bombardiers will be briefed to salvo bombs over the target area in case the bombs fail to release on the selective method.

Amendment 4: a. par 3X(1) should read: (1) "D" Day and "H" Hour 0810X
2 February 1945

Amendment 5: a. par 1A to read:

A. Friendly

(1) Air

(a) CTF 93 will provide air defense of the operating bases.

(b) Dumbo service: A Dumbo will be in position at

20°00'N 142°00'E from 0900X to 1200X. Call sign

24V213. Another Dumbo will be at 22°50'N 140°00'E

-1-

S*E*C*R*E*T

Amendment 5: a. A.(1)(b) cont.

S*E*C*R*E*T

XXI Bomber Command
APO 234

from 1030K to 1230K. Call sign 124V213. Both guard 4474kos and 500kes. Channel "C" on VHF.

(2) Naval

- (a) Lifeguard submarine: 3 submarines will be on station at 32°30'N 137°00'E, 31°30'N 138°00'E and 30°00'N 139°15'E during entire mission.
- (b) Destroyer: A destroyer will be on rescue duty at 22°00'N 141°30'E from 0945K to 1100K. Same destroyer will be on duty from 2030K to 2400K at position 22°00'N 144°30'E. Voice call Halyard.

b. Change par 3D to read:

D. Routes - 73rd and 313th Wings:

Base

17°00'N 144°00'E (Departure Point)

29°00'N 135°45'E

34°45'N 135°53'E

34°51'N 135°36'E (IP)

Target

34°17'N 135°01'E

33°00'N 135°15'E

23°00'N 145°00'E

Base

Amendment 6: a. Add to par 1A(1)(b)

- (b) 2 B-29 bombs will be over life guard submarine station (31°30'N 136°45'E) approximately 1400K.

b. Change par 1A(2)(a) to read:

- (a) 3 submarines will be on station at 31°30'N 136°45'E, 30°00'N 138°15'E and 28°15'N 140°00'E during entire mission.

Amendment 7: a. Cancel middleman one repeat cancel middleman one scheduled for 2 Feb 45.

b. Change par 3X(1) to read: "D" Day and "H" Hour: to follow.

Amendment 8: a. Change par 3A to read:

A. 73rd Wing objective:

PRIMARY TARGET
90.25

Zone 1 of Map 1-9

AIMING POINT

058115

071123

092132

FORCE REQUIRED

3 Squadrons

2 Squadrons

2 Squadrons

Aiming point reference on XXI Bomber Command Litho Mosaic number 90.25 - urban. Ballastic wind have been taken into consideration in selection of aiming points and no correction will be made.

SECONDARY TARGET: None

LAST RESORT: Any industrial city.

FORCE REQUIRED: 7 Squadrons.

b. Change par 3B to read:

B. 313th Wing Objective:

PRIMARY TARGET
90.25

Zone 1 of Map M-9

AIMING POINT

119128

FORCE REQUIRED

3 Squadrons

Aiming point reference on XXI Bomber Command Litho Mosaic number 90.25 urban. Ballastic winds have been taken into consideration in selection of aiming points and no correction will be made.

c. Change par 3C(2) to read:

- (2) Mean axis and altitude of attack: 318°True at base altitude of 25,000 feet.

-2-

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Amendment 8 cont:

S*E*C*R*E*T

XXI Bomber Command
APO 234

d. Change par 3D to read:

D. Route: 73rd and 313th Wings:

Base

17°00'N 140°00'E (Departure point)

29°00'N 135°45'E

33°28'N 135°45'E

34°31'N 135°23'E (IP)

target

34°43'N 134°52'E

33°00'N 135°15'E

23°00'N 145°00'E

Base

e. Change par 3X(1) to read:

(1) "D" Day and "H" Hours: 0810K 4 February 1945

f. Change par 3X(4) to read:

(4) prevailing surface winds over the target are from west north-west. In order to prevent smoke from preceding attacks obscuring the aiming point for succeeding attacks the aiming point will be attacked in the follow order:

(1) 058115

(2) 071123

(3) 092132

(4) 119128

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TACTICAL MISSION REPORT

Mission No. 26
4 February 1945

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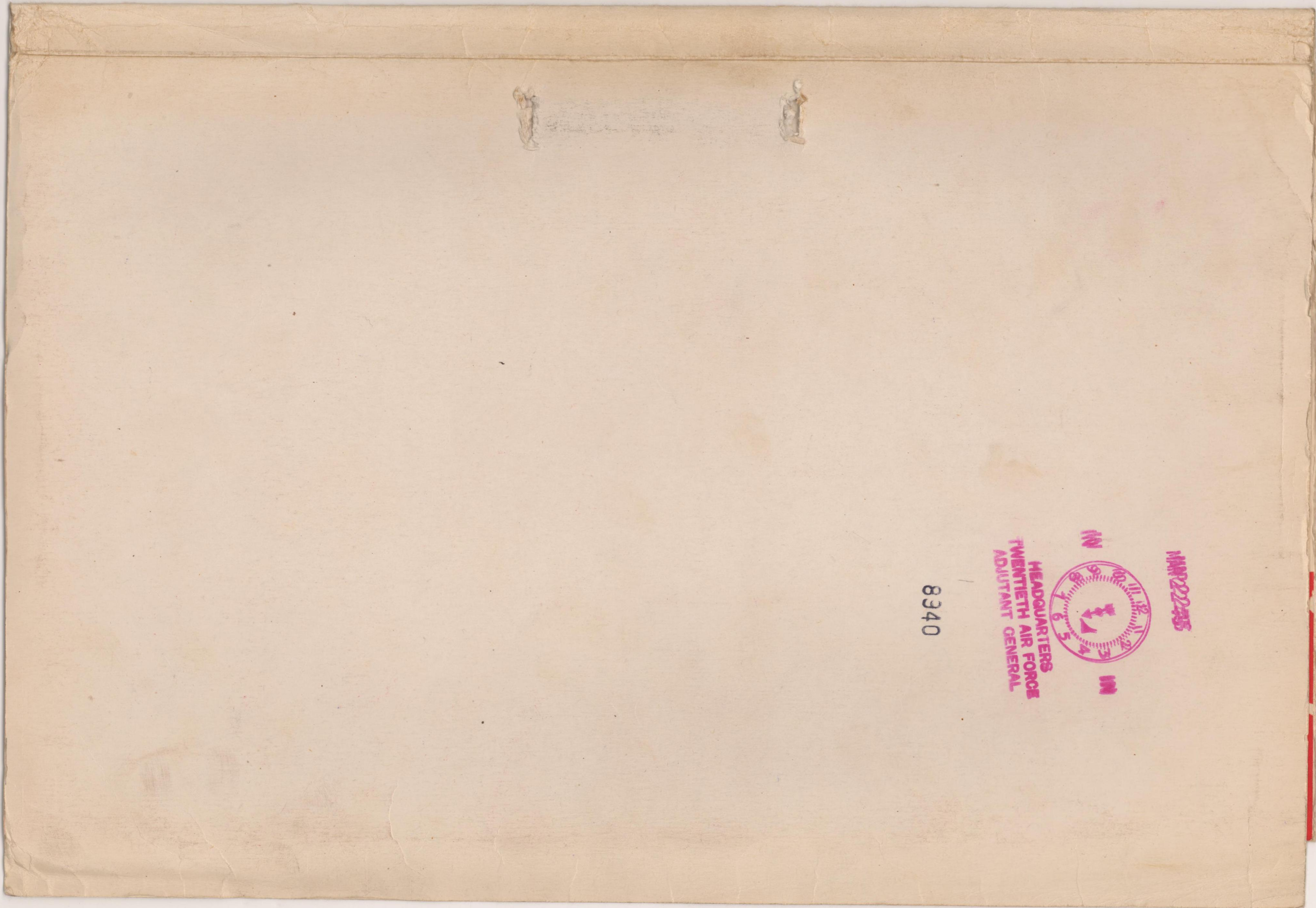
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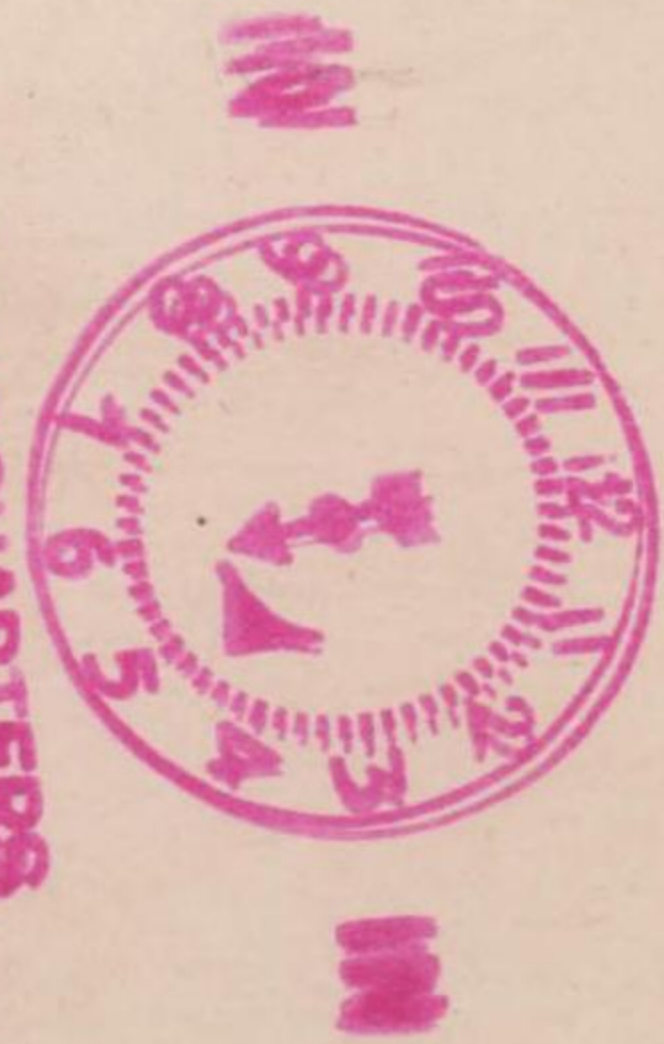
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2	Commanding General, XXI Bomber Command
3	Deputy Commander, Twentieth Air Force
4	Chief of Staff, Twentieth Air Force
5	Chief of Staff, XXI Bomber Command
6	Deputy C/S, Opns. & Int., XXI Bomber Command
7	Deputy C/S, Sup. & Maint., XXI Bomber Command
8	A/C of S, A-2, XXI Bomber Command
9	Commanding General, Army Air Forces, Attention: AC/AS Intelligence
10	Commander In Chief, Pacific Ocean Areas (Adv. Hq.)
11	Commander In Chief, Pacific Ocean Areas (Rear Hq.)
12	Chief of Naval Intelligence ^{Operations} Intelligence, OP-16-V
13	Joint Intelligence Center, Pacific Ocean Areas
14	Commander Air Force, Pacific Fleet
15	Commander, Fifth Fleet
16	Commander, First Carrier Task Force
17	Commander, Forward Area
18	Commanding General, U. S. Army Forces in Far East
19	Commanding General, U. S. Army Forces, Pacific Ocean Areas
20	Commanding General, Allied Air Forces, Southwest Pacific Areas
21	Commanding General, U. S. Strategic Air Forces In Europe
22	Commanding General, Eighth Air Force
23	Commanding General, Mediterranean Allied Air Forces
24	Commanding General, Fifteenth Air Force
25 - 26	Commanding General, Seventh Air Force
27	Commanding General, Seventh Bomber Command
28	Commanding General, Seventh Fighter Command
29	Commanding General, XX Bomber Command
30	Commanding General, 58th Bomb Wing
31	Commanding General, 73rd Bomb Wing
32	Commanding General, 313th Bomb Wing
33	Commanding General, 314th Bomb Wing
34	Commanding General, 315th Bomb Wing (Adv. Hq.)
35	Commanding Officer, 3rd Photo Recon. Squadron
36	Commanding Officer, 33rd Statistical Control Unit
37	Tactics & Training Section, A-3, XXI Bomber Command
38 - 39	Historical Officer, XXI Bomber Command
40 - 69	Commanding General, Army Air Forces, Attention: AC/AS Intelligence, Collection Division
70	Commanding Officer, 6th Bomb Group (VH)
71	Commanding Officer, 9th Bomb Group (VH)
72	Commanding Officer, 19th Bomb Group (VH)
73	Commanding Officer, 29th Bomb Group (VH)
74	Commanding Officer, 39th Bomb Group (VH)
75	Commanding Officer, 40th Bomb Group (VH)
76	Commanding Officer, 330th Bomb Group (VH)
77	Commanding Officer, 444th Bomb Group (VH)
78	Commanding Officer, 462nd Bomb Group (VH)
79	Commanding Officer, 468th Bomb Group (VH)
80	Commanding Officer, 497th Bomb Group (VH)
81	Commanding Officer, 498th Bomb Group (VH)
82	Commanding Officer, 499th Bomb Group (VH)
83	Commanding Officer, 500th Bomb Group (VH)
84	Commanding Officer, 504th Bomb Group (VH)
85	Commanding Officer, 505th Bomb Group (VH)
86 - 100	Reports Section, A-2, XXI Bomber Command

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