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Tactical Mission **REPORT**

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By authority of
C.G., Twentieth Air Force
21 Mar 49 RLB
(Date) (Initials)



MISSION NO. 270 280

FLOWN JUL 1945

COPY NO. 291 119

**HEADQUARTERS
TWENTIETH AIR FORCE
APO 234**

7-55-54

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S E C R E T

F O R E W O R D

This Tactical Mission Report covers
1 mission of the XXI Bomber Command
before it was re-designated as the
Twentieth Air Force and 2 missions
thereafter.

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HEADQUARTERS TWENTIETH AIR FORCE APO 234

XXI Bomber Command Field Order Number 99
and Twentieth Air Force Field Orders Number
4 and 7.

Missions No. 270-283-291.

Targets: Nippon Oil Company (90.32-672), Ube Coal Liquefaction
Co. (90.32-1841), and Petroleum Complex, Kawasaki
(90.17-116/127/130)

15, 22, and 25 July 1945

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Prepared By:

A-2 Section
Twentieth Air Force

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HEADQUARTERS
TWENTIETH AIR FORCE
APO 234

SUBJECT: Report of Attacks on 3 Precision Targets, 15, 22 and 25 July 1945

TO : Commanding General, U. S. Army Strategic Air Force,
APO 234, San Francisco, California

1. IDENTIFICATION OF REPORT:

a. Field Order Number 99, Headquarters XXI Bomber Command, dated 15 July 1945, and Field Orders Number 4 and 7, Headquarters Twentieth Air Force, dated 22 and 25 July 1945 respectively, directed the 315th Bombardment Wing to participate in night attacks against 3 precision targets on Honshu in XXI Bomber Command Mission Number 270 and Twentieth Air Force Missions Number 283 and 291.

b. Targets Specified:

(1) Primary Targets:

<u>Mission Number</u>	<u>Target</u>	<u>Force Assigned</u>
270	Nippon Oil Company (90.32-672)	70 Aircraft
283	Ube Coal Liquefaction Company (90.32-1841)	80 Aircraft
291	Petroleum Complex (Mitsubishi Oil Refinery, 90.17-116; Hayama Petroleum Refinery, 90.17-127; and Asaishi Petroleum Company, 90.17-130).	70 Aircraft

(2) No other targets were specified.

2. MISSION PLANNING:

a. Selection of Targets: The selection of these targets was a continuation of the policy set up to govern the type missions that the 315th Bombardment Wing was equipped to conduct. Target importance and order of attack was determined by the relative value of the target to the enemy and the availability of target information, radar scope photos, and other factors effecting mission planning.

b. Importance of Targets:

(1) The Kudamatsu Plant of the Nippon Oil Company (Mission Number 270) is the fourth largest crude oil refinery in the Japanese inner zone and has an estimated annual refinery capacity of 2,500,000 barrels and a cracking capacity of 660,000 barrels. The products of this plant are gasoline, aviation gasoline, lubrication oil, and light and heavy oils. The estimated storage capacity is 200,000 barrels.

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(2) The Ube Coal Liquefaction Company (Mission Number 283) is credited with the capacity to produce 475,000 barrels of synthetic oil, about 1/3 of Japanese home-island production. It is close to its raw material source, probably obtaining coal from the undersea mines approximately 1 mile to the south. It is, therefore, a most important target in synthetic oil production. Its destruction would further complicate the enemy's already overburdened oil problem.

(3) The 3 targets (90.17-116, 90.17-127, 90.17-130) which make up the petroleum complex to be attacked on Mission Number 291, together, are credited with almost 25 per cent of central Japan's crude oil refining capacity and 20 per cent of its storage capacity.

c. Time Factors: Aside from the policy of conducting attacks by the 315th Wing at night, time factors were of little importance in the planning of these missions.

d. Munitions and Fuel Loading:

(1) Selection of Bombs and Fuzes: The 500-pound general-purpose bomb was selected for use against all 3 targets. The Nippon Oil Company (Mission Number 270) and the Petroleum Complex (Mission Number 291) contain installations of both storage and refinery type, against which the large number of hits obtainable by the use of this size bomb should result in maximum damage to both manufacturing and storage facilities. The Ube Coal Liquefaction Company (Mission Number 283) contains buildings of reinforced concrete and wood frame type, all of which are small in plan area. The use of larger size bombs would prove most effective against the concrete structures, but would not permit maximum tonnage to be carried and would also decrease the number of direct hits. It was believed, in selecting the 500-pound bomb, that this bomb would be capable of destroying the wood frame structures and also would seriously damage the reinforced installations. Fuzings of .1-second delay nose were selected for the bombs to be employed on all 3 targets. This delay fuze was selected as an assurance fuzing only, since nose fuzes with shorter delays were not available. Tail fuzings of .01 second delay for Mission Number 270 and 283 and .025-second delay for Mission Number 291 were selected. The .01-second and .025-second delay tail fuzes were selected since they would allow sufficient penetration of the bomb within the installations in each case, to a depth assuring maximum damage.

(2) Bomb Loading: It was estimated that approximately 18,500 pounds of bombs per aircraft would be carried on these missions.

(3) Ammunition Loading: It was estimated that 600 rounds of ammunition per aircraft would be carried.

(4) Fuel Loading: An average fuel load per aircraft of 6,500 gallons was estimated.

e. Flight Planning:

(1) Navigation: Aircraft were to fly the following routes on these missions:

(a) Mission Number 270:

<u>Route</u>	<u>Reason for Selection</u>
Base to Iwo Jima	Tactical Doctrine.

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to
3255N - 13205E
to
This point, on the southwestern tip of Shikoku, is very distinctive.

3334N - 13126E (IP)
to
This point, 1 mile west of Usa, was expected to provide a good radar approach to the target.

Target
Nippon Oil Company at Kudamatsu.

to
330130N - 1330600E
Land's end.

to
Iwo Jima to Base
Tactical Doctrine.

(b) Mission Number 283:

Base to Iwo Jima
Tactical Doctrine.

to
3301N - 13306E
This point (Inomina Misaki) on the southwest corner of Shikoku was expected to be easily identified.

to
334330N - 1314100E (IP)
Hima Jima, north of Kyushu, was expected to be easily identified for the best radar approach to the target.

to
Target
Ube Coal Liquefaction Company.

to
3240N - 13150E
Land's end. This point would route the forces through the least defended areas.

to
Iwo Jima to Base
Tactical Doctrine.

(c) Mission Number 291:

Base to Iwo Jima
Tactical Doctrine

to
343630N - 13851E
Landfall. The lower point of the peninsula between Sagami and Suruga Bay was expected to be easily identified.

to
3457N - 13909E (IP)
This point (Kawana Misaki) on the eastern shore of Sagami Bay was expected to be easily identified for the bomb run.

to
Target
Petroleum Complex at Kawasaki.

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to

3524N - 14024E

land's end. This point would route the forces through the least defended areas.

(2) Radar Factors:

(a) Mission Number 270: Radar navigation was expected to be very good on this mission because of the excellent coastal check points of Kyushu and Shikoku. Landfall, a distinctive point on the southwestern tip of Shikoku was expected to be easily identified by radar operators in time to make the initial wind run. The distance from landfall to the initial point, 77 miles, was considered sufficient for rechecking wind and ground speed because of the land-water contrast which would facilitate navigation and identification of the initial point. The run from the initial point to the target has some good check points and drift was not expected to exceed 6 degrees. The target itself was expected to be easily identified, since it was situated directly on a prominent coast line. It was planned to employ direct radar synchronous bombing on this target.

(b) Mission Number 283: Landfall, a prominent peninsula on the southwest coast of Shikoku, was expected to be easily identified by radar. It was believed that the use of the islands and the peninsular coast line of the Inland Sea would facilitate radar navigation. The initial point, Hime Jima, was expected to be easily picked up by radar and should provide a good run to the target. It was believed that the course from landfall to target, which approximates a straight line, would allow the radar operator ample time for computing all important data. The target, located on a coastal projection just north of the city of Ube, would be resolved as a separate return. It was planned to employ a direct radar synchronous release on this target.

(c) Mission Number 291: Landfall point, located on the southern tip of the arrowhead shaped peninsula south of Mount Fuji, was expected to be easily identified by all operators at a range of approximately 50 nautical miles. It was believed that landfall point would be a good wind point to employ in making the radar wind run. The course from landfall to target approximates a straight line and the initial point provides a very good coastal checkpoint. The area in which the 3 targets of the complex is contained, is a series of square patches of reclaimed land separated by canals. The APQ-7 radar equipment resolves these areas so that the operator would be able to determine the exact target location. With a straight course from landfall to the target, it was expected that each aircraft could check the ground speed and drift for bomb release. It was planned to employ direct radar synchronous bombing on this target.

(3) Antiaircraft Factors:

(a) Mission Number 270: There were 16 heavy guns, 20 medium guns, and 3 searchlights located in the Kudamatsu Area. This was considered a very weak defense against night attack and only meager and inaccurate flak was expected. Medium flak would have little effect at the planned altitudes of 10,000 to 11,000 feet. The route was planned to avoid other antiaircraft concentrations and the axis of attack would avoid the 34 heavy guns located at nearby Tokuyama.

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(b) Mission Number 283: No antiaircraft defenses were apparent in the Ube Area. However, very meager and inaccurate medium flak had been encountered there on previous missions. This would have no effect at the planned altitude of 12,000 to 13,000 feet. The route was planned to avoid other antiaircraft defenses. A sharp breakaway to the south after bombs away was planned in order to avoid the Shimonoseki-Moji defenses.

(c) Mission Number 291: Strike aircraft, on the planned approach, would be within range of 128 heavy guns in the immediate vicinity of the target, approximately 30 heavy guns in the Yokosuka area (Sagami Bay approach), and approximately 8 guns of the Hiratsuka defenses. Approximately 50 to 70 searchlights would be effective on the planned approach. Cloud undercast and searchlight countermeasures were expected to decrease the effectiveness of these searchlights. The route and axis of attack were determined primarily by allowing for the best radar return. In order to penetrate to the Kawasaki docks area, it was difficult to plan a route that would avoid much of the concentrated defenses. In order to reduce the effectiveness of enemy antiaircraft concentrations, the axis of attack was planned as closely as possible to a downwind approach. This approach had been used before, but it was still one of the safest axis within operational limits. Only fairly accurate flak was expected at the planned altitude of 16,000 to 17,000 feet. On leaving the target area, a breakaway to the right was specified, avoiding the large antiaircraft concentrations in South Tokyo and the Kisarazu defenses on Chiba peninsula.

f. Bombing Data: Axes of attack, bombing altitudes, anticipated drift, and other pertinent bombing data were as follows:

<u>Mission Number</u>	<u>Axis of Attack</u> (Degrees)	<u>Bombing Altitude</u>	<u>Drift Degrees</u> (Right)	<u>Length of Run Miles</u>	<u>Time of Run</u> (Min.)	<u>Ground Speed</u> MPH
270	28	10,000 to 11,000 ft.	5	22	5	277
283	292	12,000 to 13,000 ft.	4	28	7½	225
291	40	16,000 to 17,000 ft.	4½	48½	10	282

g. Defensive Tactics:

(1) Fighter Escort: Since these missions were to be flown at night, no fighter escort was planned.

(2) Enemy Fighter Reaction:

(a) Mission Number 270: Although 30 to 40 fighters were located in the areas over which the B-29's were to fly, it was believed that not more than 15 to 20 of these fighters would oppose this strike, of which number approximately 5 would be night fighters.

(b) Mission Number 283: It was indicated that 15 to 30 of the 40 to 50 enemy fighters in this target area might be airborne against the strike. It was believed that interception might be effected by 10 to 20 single-engine fighters working in conjunction with 5 to 10 twin-engine fighters.

(c) Mission Number 291: It was estimated that 25 to

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35 enemy fighters could be airborne, including 5 to 10 night-fighters. An estimated 15 to 20 fighters might effect interception. It was believed that these fighters would offer negligible to weak opposition.

(3) RCM:

(a) Missions Number 270 and 283: It was planned to carry rope in each aircraft to be dispersed when protection was needed from radar-controlled flak and searchlights. Since the 315th Wing was not yet equipped with RCM equipment, search and jamming could not be conducted.

(b) Mission Number 291: Because of large concentrations of antiaircraft in this target area, the 314th Wing was to furnish 2 jamming airplanes to cover this strike since the 315th Wing was not yet equipped to conduct jamming. The special jamming airplanes (B-29's) were to orbit the point 3530N - 13942E over a radius of 10 miles at an altitude of 19,000 feet for one aircraft and 19,500 feet for the other. The special aircraft were to be equipped to barrage jam the 72 to 84 and 190 to 210 megacycle regions and to spot jam any gun-laying or searchlight signals appearing outside the barrage. All strike aircraft were to carry rope to be dispersed when protection was needed from radar-controlled enemy flak and searchlights.

h. Air-Sea Rescue: (See Annex A, Part VII, for Air-Sea Rescue Chart).

(1) The Navy was furnished with details of these missions and in addition to the regular service of providing crash boats in the vicinity of the B-29 bases for take-offs and landings, provided the following air-sea rescue facilities:

(a) Mission Number 270: 3 submarines, 6 Dumbos, and 3 surface vessels.

(b) Mission Number 283: 4 submarines, 6 Dumbos, and 3 surface vessels.

(c) Mission Number 291: 4 submarines, 8 Dumbos, and 3 surface vessels.

(2) This Air Force assigned 1 Super-Dumbo on Mission Number 283 to orbit a submarine position.

3. EXECUTION OF MISSIONS:

a. Take-off: Take-offs were accomplished as follows:

<u>Mission Number</u>	<u>Aircraft Airborne</u>	<u>First Take-off</u>	<u>Last Take-off</u>
270	69	150730Z	150847Z
283	80	220730Z	220850Z
290	83	250630Z	250738Z
Total	232*		

*The above total does not include 6 wind-run aircraft (2 for each mission).

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b. Route Out: Long range navigation was accomplished by individual aircraft on all 3 missions. Of the 238 aircraft airborne on these missions, a total of 6 aircraft made navigational errors resulting in major course deviations to the targets. This was not deemed an abnormally high percentage.

c. Targets:

(1) Primary Targets: Navigation and bombing was accomplished by APQ-7 radar. Winds were also determined by radar. The weather to and from the target areas as well as in the areas themselves was considered excellent. A total of 212 B-29's dropped 1798.6 tons of high explosives on all primary targets as follows:*

<u>Mission Number</u>	<u>Aircraft Bombing</u>	<u>First Bombing</u>	<u>Last Bombing</u>	<u>Altitude of Release</u>
270	61	151407Z	151601Z	10,230 to 11,700 ft.
283	74	221422Z	221640Z	12,400 to 15,460 ft.
291	<u>77</u>	251234Z	251403Z	16,500 to 18,100 ft.
Total	212			

* These figures include bombing by 6 wind run aircraft which were assigned targets other than those assigned to the main forces.

(2) Targets of Opportunity: A total of 9 B-29's, 1 of which also bombed the primary target on Mission Number 270, dropped 73.7 tons of high-explosives on various targets of opportunity on these missions.

d. Route Back: Loran, celestial, and radio were used as aids to navigation on the return trips. Routes from targets to bases were flown as briefed with no major course deviations. A total of 16 B-29's landed at Iwo Jima on these missions.

e. Landing: Aircraft landed at their home bases as follows:

<u>Mission Number</u>	<u>First Landing</u>	<u>Last Landing</u>
270	152200Z	152340Z
283	222144Z	222355Z
291	251951Z	252120Z

f. Losses and Damage: One B-29 was lost on these missions as a result of a direct hit by antiaircraft over the target (Mission Number 291). A total of 17 B-29's was damaged on Missions Number 283 and 291 for the following reasons: 13 to enemy antiaircraft, 1 for mechanical reasons, and 3 for other reasons. No aircraft were lost or damaged on Mission Number 270.

g. Execution Versus Planning: There were no major differences in the execution and the planning of these missions.

4. RESULTS OF MISSIONS: (See Part III, Annex D, for details).

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a. Mission Number 270, Kudamatsu Plant of the Nippon Oil Company: It was estimated that 60 per cent of the total storage capacity of this plant was damaged as a result of this mission. Extensive damage was also caused to the Hitachi Manufacturing Company which adjoins the Nippon Oil Company.

b. Mission Number 283: For damage to the Ube Coal Liquefaction Plant see Damage Assessment Report Number 175 which is contained in the Tactical Mission Report for Missions Number 303, 310, and 315.

c. Mission 291: For damage to the Petroleum Complex at Kawasaki, see Damage Assessment Report Number 173 which is contained in the Tactical Mission Report for Missions Number 303, 310, and 315.

Curtis E. Lenny
CURTIS E. Lenny
Major General, U.S.A.
Commanding

S E C R E T

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Major General, U.S.A.
Commanding

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ANNEX

A

OPERATIONS

- Part I - Navigation Report and Track Chart
- Part II - Mean Points of Impact
- Part III - Bombing
- Part IV - Flight Engineering Report and Chart
- Part V - Radar Report and Radar Charts
- Part VI - Gunnery Report
- Part VII - Air-Sea Rescue Charts

Missions No. 270, 283, and 291

15, 22, and 25 July 1945

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PART I - NAVIGATION

1. Long range navigation was accomplished by individual aircraft to precision targets located at Kudamatsu (15 July), Ube Coal Liquefaction Co. (22 July), and Kawasaki Petroleum Center (25 July). All missions were flown as radar precision bombing missions by aircraft of the 315th Bombardment Wing. Of the 238 aircraft airborne on these missions, a total of 6 aircraft made navigational errors resulting in major course deviations to the target. This is not deemed an abnormally high percentage.
2. Navigation and bombing in the target areas was accomplished by APQ-7 radar. Winds were determined by radar. The weather to and from the target areas as well as in the areas themselves was excellent on these missions.
3. Time compression was used only on Mission #291 where 92 per cent of the force attacking the primary were over in 30 minutes. This is an excellent compression factor.
4. Loran and celestial were used as aids to navigation as was radio on the return trip. Routes from target to base were flown as briefed with no major course deviations noted.

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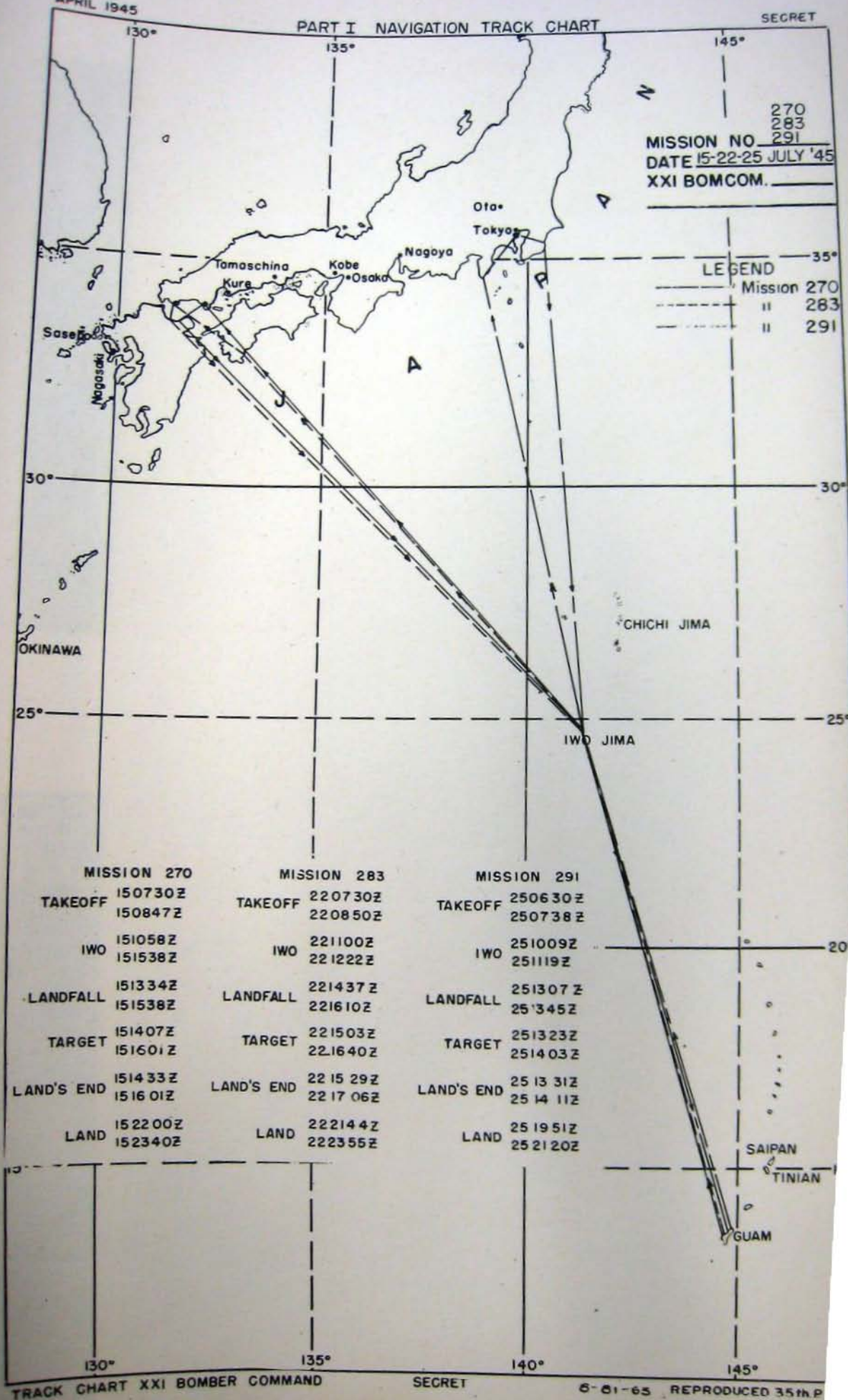
PART I NAVIGATION TRACK CHART

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MISSION NO. 270
283
291
 DATE 15-22-25 JULY '45
 XXI BOMCOM. _____

LEGEND

— Mission 270
 - - - " 283
 . . . " 291



MISSION 270

TAKEOFF 150730Z
 150847Z

IWO 151058Z
 151538Z

LANDFALL 151334Z
 151538Z

TARGET 151407Z
 151601Z

LAND'S END 151433Z
 151601Z

LAND 152200Z
 152340Z

MISSION 283

TAKEOFF 220730Z
 220850Z

IWO 221100Z
 221222Z

LANDFALL 221437Z
 221610Z

TARGET 221503Z
 221640Z

LAND'S END 221529Z
 221706Z

LAND 222144Z
 222355Z

MISSION 291

TAKEOFF 250630Z
 250738Z

IWO 251009Z
 251119Z

LANDFALL 251307Z
 251345Z

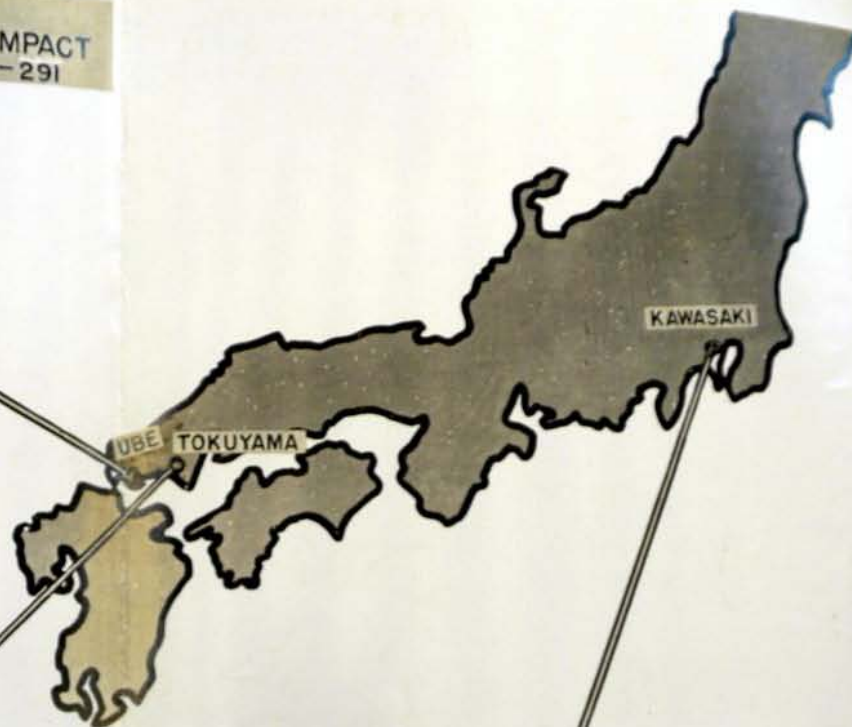
TARGET 251323Z
 251403Z

LAND'S END 251331Z
 251411Z

LAND 251951Z
 252120Z

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MEAN POINTS OF IMPACT
MISSIONS 270-283-291

MISSION NO. 283
UBE COAL LIQUEFACTION CO.
(90.32-1841)
315 TH. WING



MISSION NO. 270
NIPPON OIL CO.
(90.32-672)
315 TH. WING



MISSION NO. 291
KAWASAKI PETROLEUM COMPLEX
(90.17-116-127-130)
315 TH. WING



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PART III - BOMBING *

1. Mission Number 270, Nippon Oil Company, Kadamatsu

a. The Nippon Oil Co. was attacked by 59 aircraft of the 315th Wing with 1 MPI designated. Altitudes were from 10,230 to 11,700 feet. There were no difficulties encountered. Six aircraft made radar approaches with visual corrections, 52 aircraft made radar approaches and releases, and 1 aircraft sighted visually.

b. The mission was considered well planned. The average drift reported was 5 degrees right. Compressibility for the Wing was 80 minutes.

2. Mission Number 283, Ube Coal Liquefaction Company, Ube

a. The Ube Coal Liquefaction Company was attacked by 72 aircraft of the 315th Wing with 1 MPI designated. Altitudes varied from 12,400 to 15,460 feet, with the majority bombing from 13,000 feet. Bombing was accomplished primarily by radar except for 5 aircraft with radar malfunctions. These aircraft made radar approaches with visual corrections and releases.

b. No difficulties were encountered in executing the mission as planned. The average drift reported was 3 degrees right. Compressibility for the Wing was 97 minutes.

3. Mission Number 291, Mitsubishi Oil Refinery & Havama Petroleum Center, Kawasaki

a. The Mitsubishi Oil Complex was attacked by 75 aircraft of the 315th Wing with 1 MPI designated. Bombing altitudes varied from 16,500 to 18,100 feet. Seventy-two aircraft made radar releases and 3 aircraft made visual runs.

b. The mission was considered well planned. Average drift reported was 2 degrees right. Compressibility for the Wing was 40 minutes.

* Based on Wing Bombardier's Reports.

PART IV - FLIGHT ENGINEERING

1. Narrative of Missions as Flown:

a. Route Out: Climbs were made immediately after take off to cruising altitudes between 5,000 and 8,000 feet. Altitudes and air speeds differed to compress the striking force. Climbs to bombing altitudes made just off the coast of Japan.

b. Bomb Run: Bombing was conducted at altitudes between 10,000 and 17,000 feet and speeds up to 230 MPH CAS.

c. Return to Base: Returns to base consisted of descending to an average of 10,000 feet and cruising there until a gradual descent to base could be made.

2. Comments on the Mission:

a. Speeds used were 5 - 7 miles per hour faster than recommended

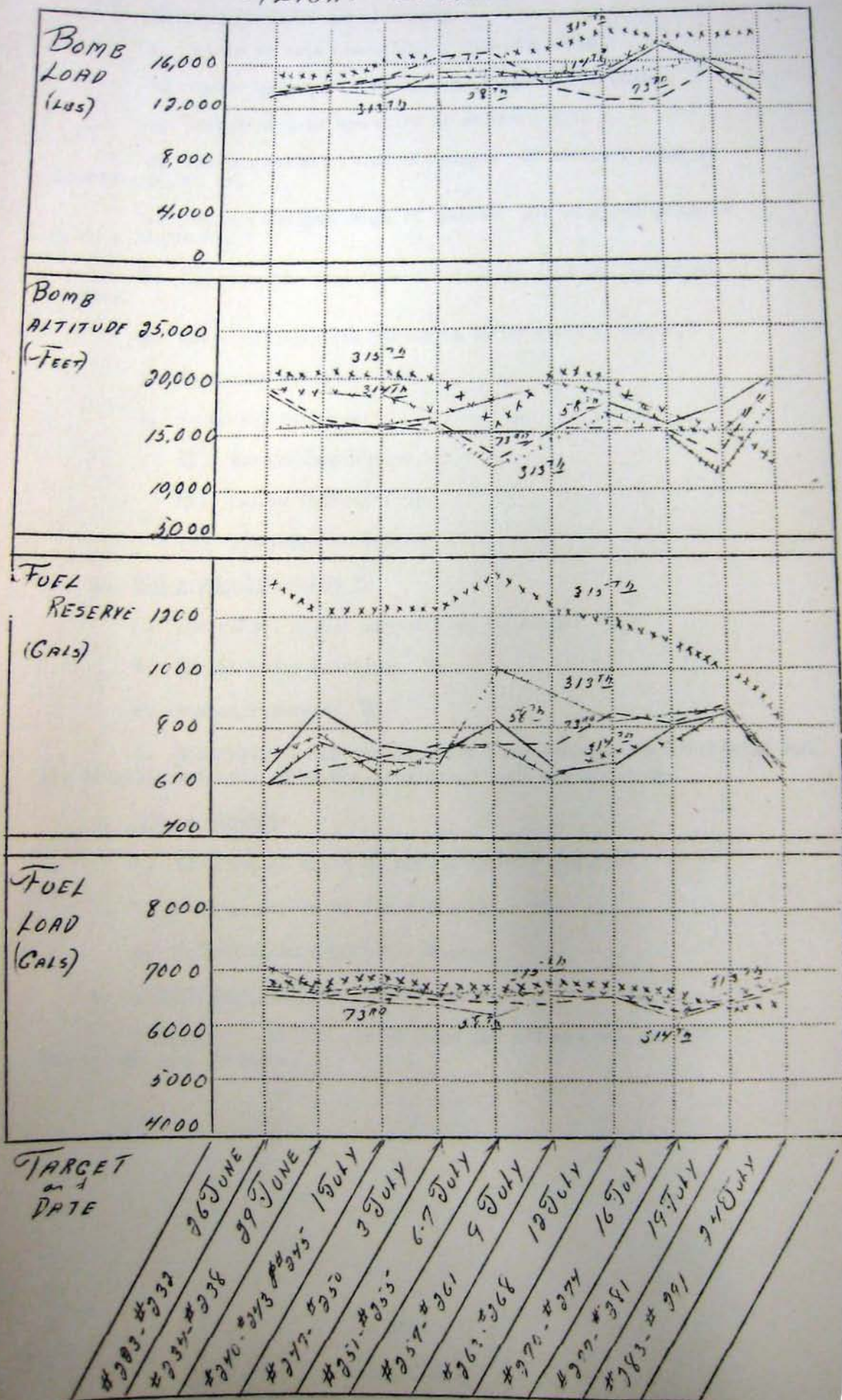
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b. Compared to other wings of this command, the 315th Wing airplanes returned to base with an average of 300 gallons more fuel reserves. Bomb loads carried were on the basis of crew experience.

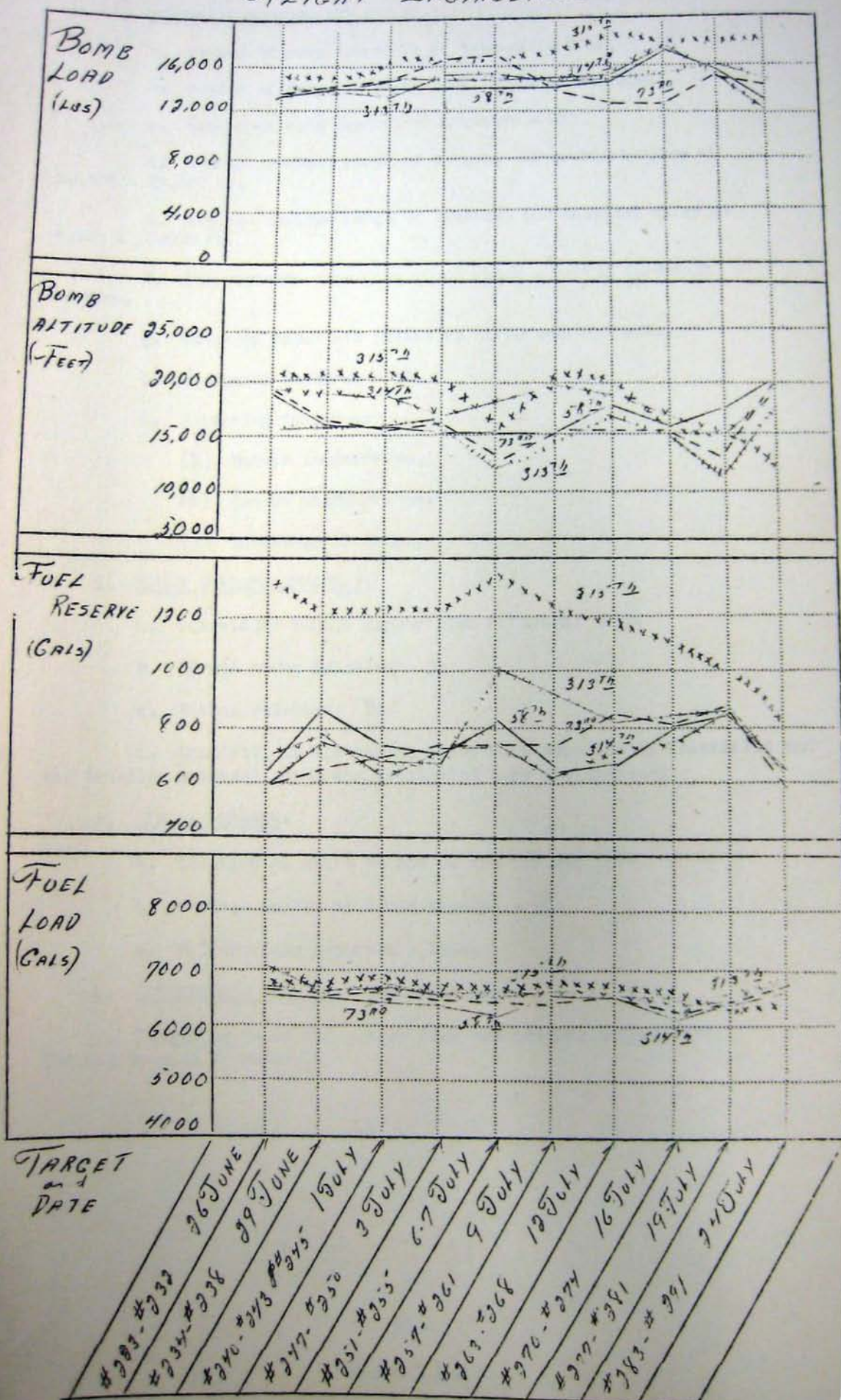
c. In view of relatively low take-off gross weights and high fuel reserves, it is felt that the 315th Wing is capable of carrying a capacity load of bombs (22,000 lbs.) to all southeast coast cities of Japan.

d. For load and consumption data, see Annex E, Consolidated Statistical Summary.

FLIGHT ENGINEERING



FLIGHT ENGINEERING



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PART V - RADAR

1. EQUIPMENT PERFORMANCE AN/APQ-7:

- a. Number of sets operative at take-off - 226.
- b. Number of sets operative over target - 212 (100%).
- c. Number of sets operative on return - 213.
- d. Average maximum range of target: 68 nautical miles at 10,000 - 15,000 ft.
- e. Average maximum range of beacon: 122 nautical miles at 5,000 - 10,000 ft.
- f. Interference came from other radar sets and turbulent weather.
- g. Coast of Japan was picked up at 70 nautical miles.
- h. Equipment failures - 11.
- i. Recurring failures:
 - (1) Beacon inoperative.
 - (2) Camera malfunctions.
 - (3) Blankings of Scope.

2. RADAR BOMBING AN/APQ-7:

- a. Individual direct synchronous releases: 223.
- b. Direct radar releases: 3.
- c. Visual releases: 8.
- d. Landfall, IP and aiming point were very easily identified and the briefing material given was considered very satisfactory.

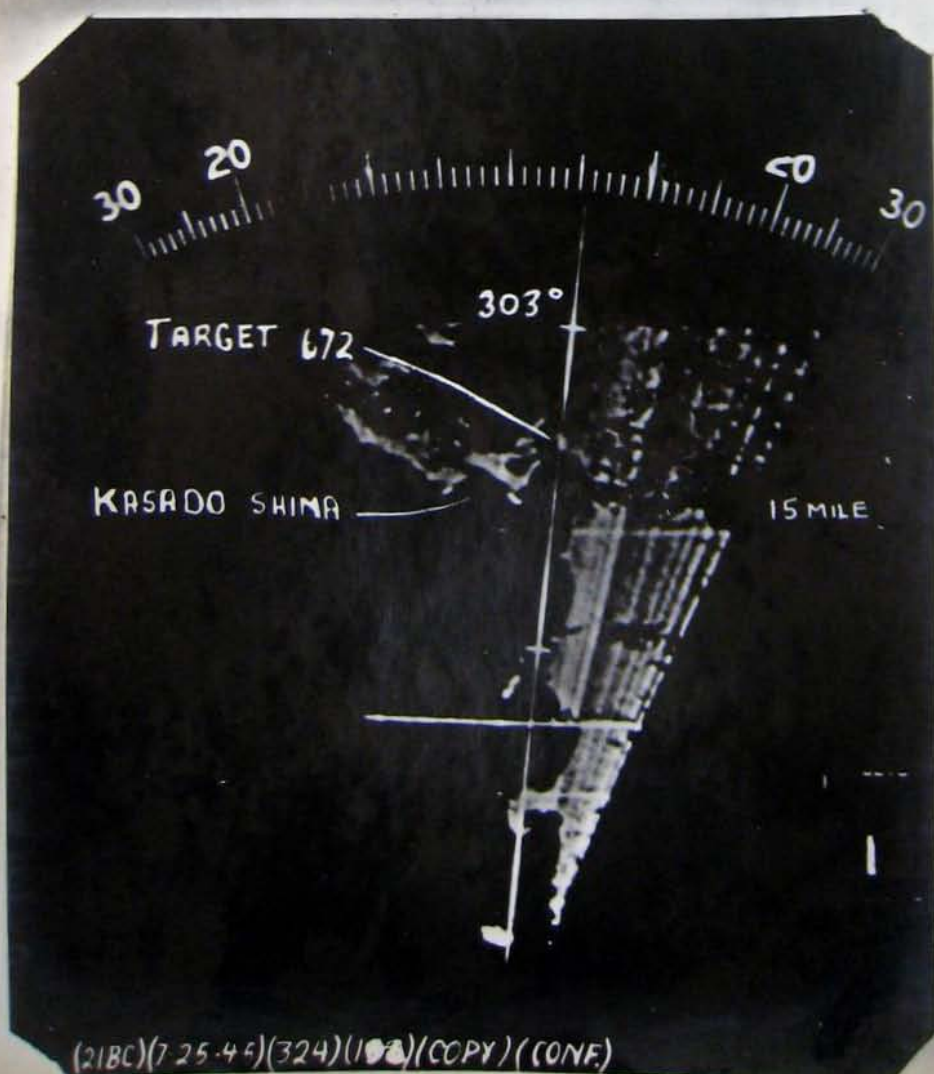
3. IFF - SCR-695:

- a. Location at which turned on and off per SOP.
- b. Average number of times checked - 28.
- c. Malfunctions reported - None.

4. ALTIMETER - SCR-719: None installed.

5. COMMENTS: - Of 212 planes over the primary target, 196 (92.4%) dropped by radar.

MISSION 270



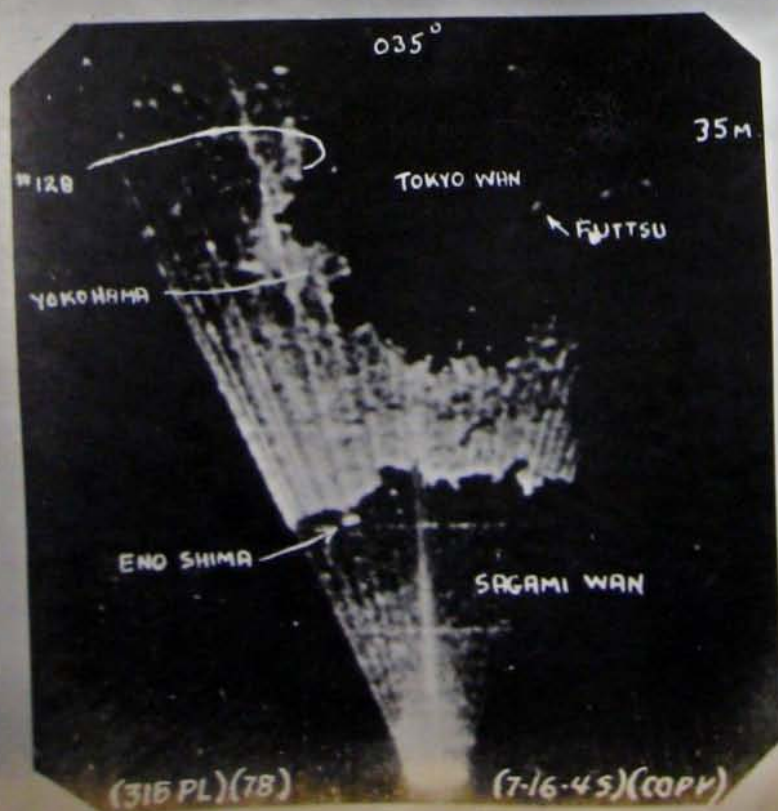
MISSION 283



MISSION 291
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APPROACH TO TARGET



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PART VI - GUNNERY*

1. Number of aircraft firing: 2
2. Average tail turret load: 600 rounds
3. Number of rounds fired in combat: 230
4. Number of rounds used for test firing: 10,725
5. Guns Loaded: Cold
6. Malfunctions:
 - a. APG-15: 71 malfunctions.
 - b. C.F.C.: Gunchargers (2)
 - c. CAL. .50 M.G.: Cocking lever backwards, swelled cases, short rounds (4), broken belt, Loose headspace (3), tight headspace, Solenoids (2), top plate bracket (1).
7. Equipment operation (Total percentage operative).
 - a. C.F.C.: 99.8%
 - b. CAL. .50 M.G.: 98.9%
8. Remarks: The project is being continued to determine cause of APG-15 malfunctions.

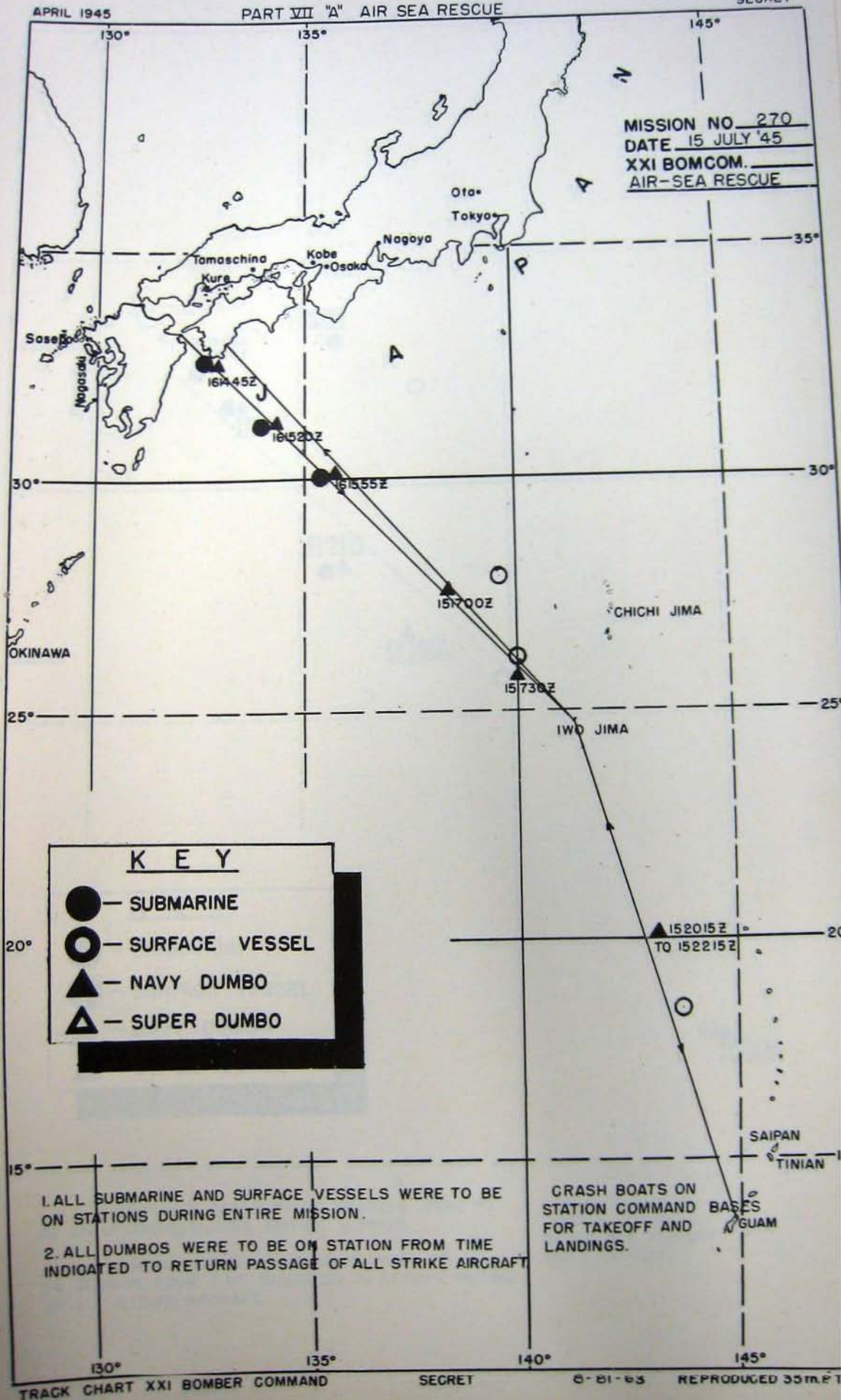
* Based on Wing Gunnery Officers Reports.

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PART VII "A" AIR SEA RESCUE

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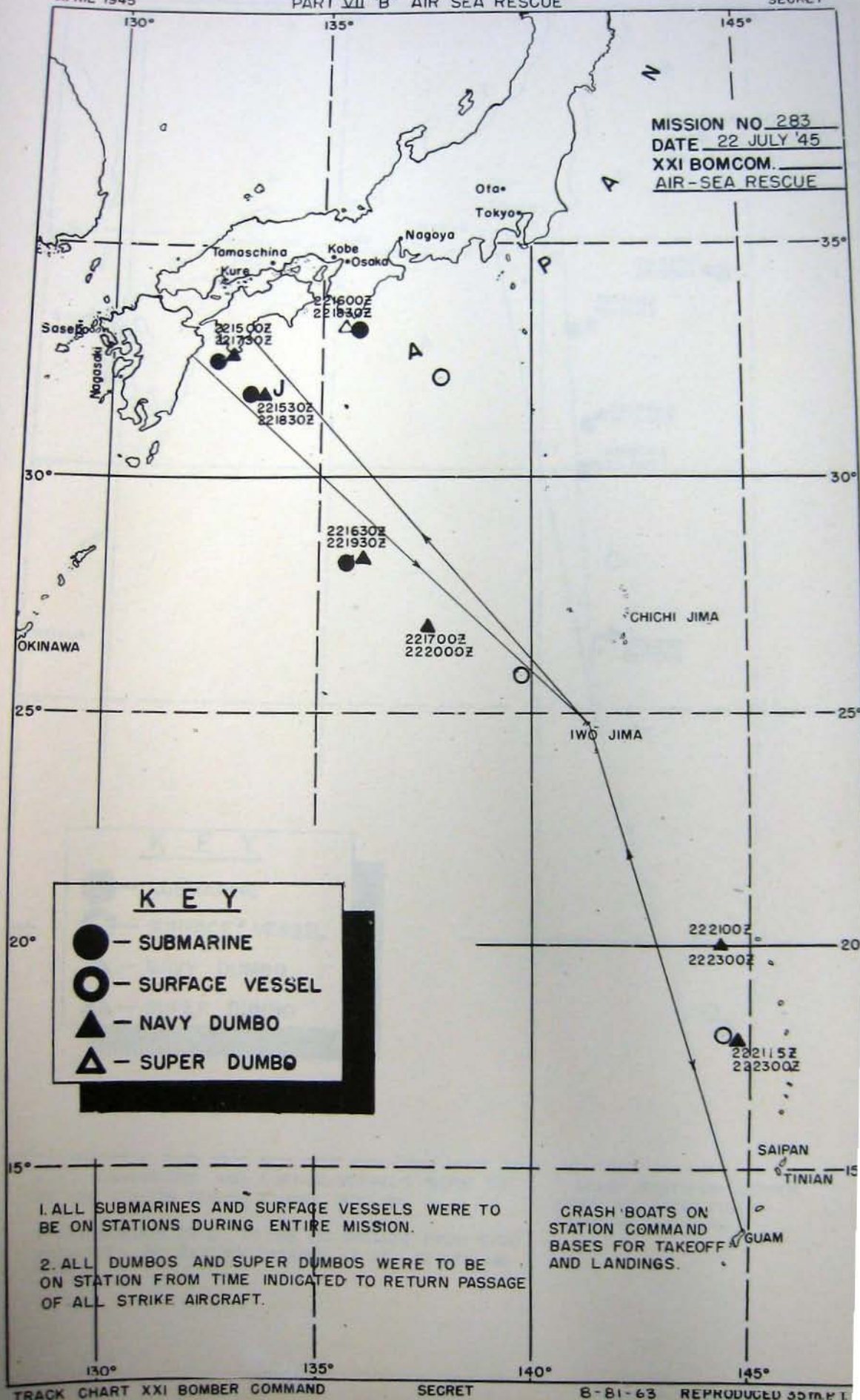
MISSION NO. 270
 DATE 15 JULY '45
 XXI BOMCOM.
 AIR-SEA RESCUE



APRIL 1945

PART VII "B" AIR SEA RESCUE

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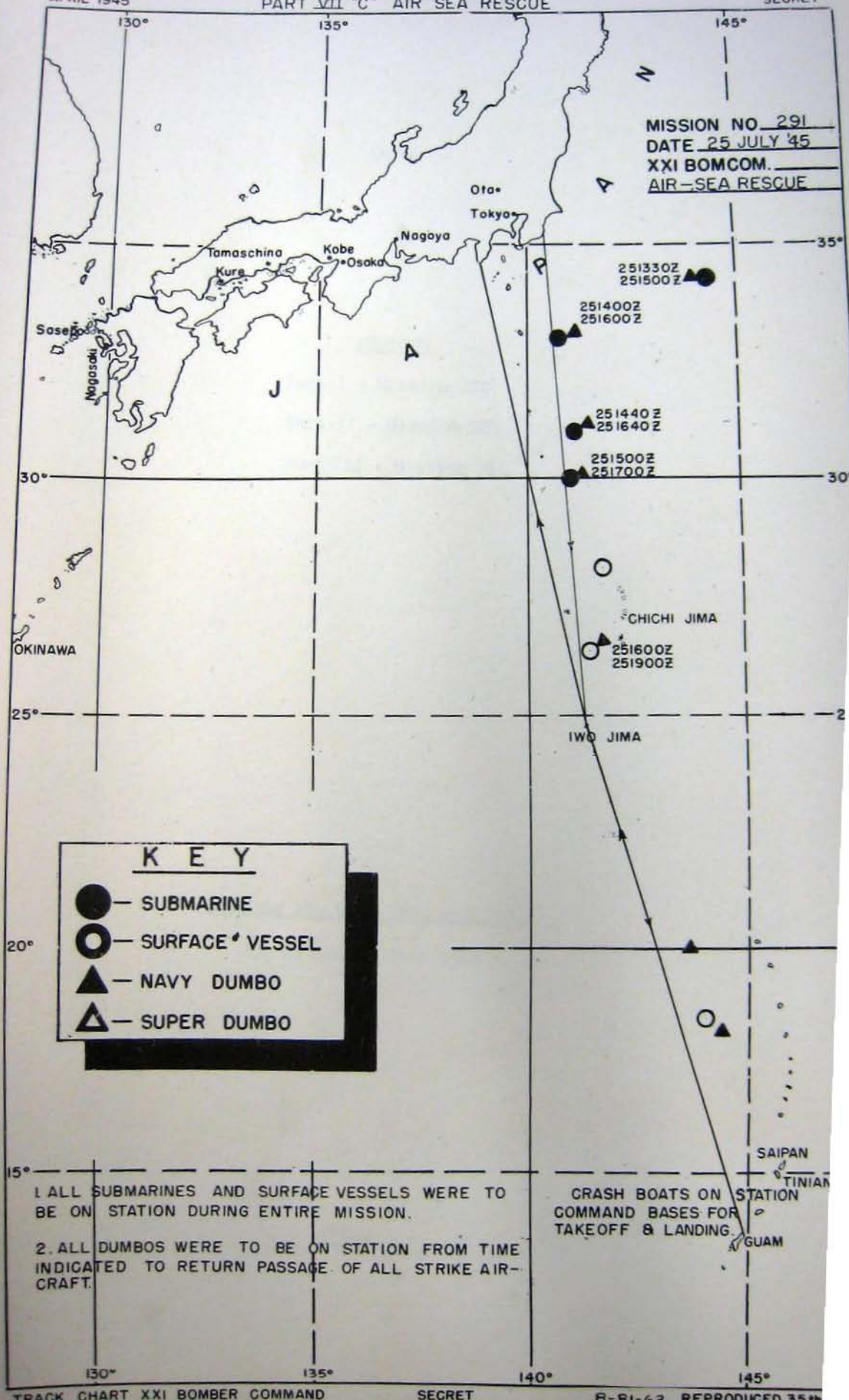
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APRIL 1945

PART VII "C" AIR SEA RESCUE

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

ANNEX

B

WEATHER

Part I - Mission 270

Part II - Mission 283

Part III - Mission 291

Missions No. 270, 283, and 291

15, 22 and 25 July 1945

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

PART I - FINAL WEATHER SUMMARY

Mission No. 270

15-16 July 1945

Base at Take-Off: Scattered low, middle and high clouds.

Route: Scattered to broken low and scattered middle and high clouds with scattered showers to Iwo Jima. From Iwo Jima to target it was clear except for occasional patches of low and middle clouds.

Target: Kudamatsu: 4/10 to 10/10 (variable) stratocumulus averaging 8/10 with tops 6000 feet and scattered middle and high clouds. Winds at 10,000 feet were 260° at 25 knots.

Base on Return: Scattered low, middle and high clouds.

PART II - FINAL WEATHER SUMMARY

Mission No. 283

22-23 July 1945

Base at Take-Off: Scattered low and middle clouds.

Route: From Guam to Iwo Jima there were only scattered low and middle clouds. There were also light scattered rain showers in this zone. From Iwo Jima to 29°N there were scattered low and middle clouds becoming broken at the end of the zone. From 29°N to 32°N there was an active cold front with overcast low, middle and high clouds and moderate to severe thunderstorms. Turbulence was so severe that several crew members were injured. The thunderstorms were so thick that it was impossible for some crews to fly around them, although an effort was made to find "soft" spots with radar. From 32°N to landfall there were scattered low clouds becoming clear on to the target.

Target: Ube: 5/10 low clouds were found over the target. Winds at 12,000 feet were 290° at 24 knots.

Base on Return: Broken low clouds and scattered middle clouds with occasional scattered light showers which reduced visibility to 7 miles.

PART III - FINAL WEATHER SUMMARY

Mission No. 291

25-26 July 1945

Base at Take-Off: Scattered low clouds and broken high clouds.

Route: There were scattered to broken low clouds; broken middle clouds, broken high clouds becoming scattered, occasional thunderheads and light showers to 21°N. From 21°N to 24°N there were overcast low clouds, broken middle clouds, scattered high clouds and frequent thunderheads and light showers. From 24°N to Tokyo area there were broken low and middle clouds rapidly becoming scattered and scattered high clouds.

Target: Kawasaki: 2/10 low clouds, tops 4000 ft; few middle clouds at 15,000 ft and 3/10 high clouds. Winds at 17,000 ft were 340° at 12 knots.

Base on Return: Overcast low clouds, scattered middle and high clouds with scattered showers.

S E C R E T

ANNEX

C

COMMUNICATIONS

Part I - Radar Counter Measures

Part II - Radio

Missions No. 270, 283, and 291

15, 22 and 25 July 1945

S E C R E T

PART I - RCM

1. Purpose:

a. To confuse enemy gun-laying and searchlight radars by the use of rope.

b. To barrage jam enemy gun-laying and searchlight radars in the 190-210 mc and 72-84 mc regions and to spot jam any gun-laying or searchlight radar signals appearing outside the barrage.

2. Method:

a. Fifty bundles of rope were carried by each aircraft and dispensed at the rate of 3 bundles per 10 seconds when protection was needed from searchlights.

b. Since the 315th Wing was not yet equipped with RCM equipment, 2 special jamming airplanes were furnished by the 314th Wing to cover the 315th Wing strike on the Kawasaki Petroleum Center. These special jamming airplanes were equipped to barrage the 72-84 mc and 190-210 mc regions and to spot jam any gun-laying or searchlight radar signals appearing outside the barrage.

3. Results:

a. There appeared to be little or no coordination between searchlights and flak except on Mission Number 291.

b. Searchlights were ineffective at Kudamatsu because of the cloud cover.

c. Search was not conducted on these missions since the 315th was not equipped with the necessary receivers.

4. Remarks: Approximately 15 crews reported that the marker beacon light was activated at landfall on the Ube strike. This was undoubtedly caused by an enemy radar located near.

PART II - RADIO

1. Strike Reports: There were 23 strike reports received by the Wing Ground Station during these missions.

2. Fox Transmissions: Weather and time signals were transmitted at scheduled times.

3. Frequencies: There was no evidence of intentional jamming during these missions. Following is a percentage of traffic per frequency: 30.9 per cent on 3 megacycles; 37.9 per cent on 7 megacycles and 31.2 per cent on 11 megacycles.

4. Navigational Aids: Ranges, homers and broadcast stations were the only navigational aids used during these missions. All aircraft using these radio facilities reported excellent results.

5. Net Discipline and Security: There were no outstanding breaches of net discipline and no violations of security during these missions.

S E C R E T

6. Enemy Transmissions: There were no incidents of intentional jamming reported.

7. Distress: The following distress traffic was logged during Mission #283 22 July 1945: At 221350Z, aircraft 3V537 sighted a red flare north of Iwo Jima, answered with green flare and had about 6 red ones fired back. Aircraft 3V537 orbited the spot and the radio operator called Iwo Jima and the 315th Wing ground station giving information concerning the flares. Aircraft 3V537 contacted the Dumbo, in the vicinity, as well as the destroyer; dropped smoke bombs to direct them to the orbited location and also dropped emergency supplies. Aircraft 3V537 orbited for approximately four and half hours and finally left after being relieved by a Dumbo because one of 3V537's engines was feathered.

8. Equipment Malfunctions: SCR-522: 5 inoperative; AN/ARN-7: 1 inoperative; 1 indicator needle hunting; 1 no reaction of needle; Interphone: 2 jackboxes weak and noisy; BC-348: 1 band selector switch shorted out.

S E C R E T

ANNEX

D

INTELLIGENCE

- Part I - Enemy Air Opposition
- Part II - Enemy Antiaircraft
- Part III - Damage Assessment Reports

Missions No. 270, 283, and 291

15, 22, and 25 July 1945

S E C R E T

S E C R E T

PART I - ENEMY AIR OPPOSITION *

1. General Summary:

a. Enemy fighter opposition to these 3 strikes at Kudamatsu, Ube and Kawasaki was consistent in numbers but deficient in effectiveness. Approximately 25 Jap fighters were seen on each of the 3 missions and only 4 attacks were sustained; all on the Ube mission.

b. No B-29 was lost or damaged by enemy interceptors. Superfort crews made no claims.

c. The negligible fighter opposition at Kawasaki was significant because fighter strength in the Tokyo area had consistently been the strongest in Japan. The comparatively few aircraft that were airborne attested to the Jap policy of conserving planes and avgas.

d. The lack of interception, on the other hand, was attributable to the lack of adequate night-fighting equipment.

e. Recent intercepts made by Allied RCM observers and partially verified by 315th Wing crewmen making visual contacts with the enemy aircraft gave strong indication that the Japs were experimenting with AI (airborne intercept). Although the Japanese have encountered production problems in the electronic field their AI may become a threat to B-29s in the near future.

f. In these night strikes evasive action was successfully used in eluding the Japanese night-fighting aircraft while at other times clouds or maneuvers did not stop the interceptors.

g. There were strong indications that the Japanese may favor the Irving as an adequately equipped night-fighter. Allied intercepts pointed to the FD-2 (518 mcs; PRF 500) as the AI type of equipment which may be found on the aircraft.

2. Summary of Opposition on Each Mission:

a. Mission 270, 15/16 July, Kudamatsu:

(1) Approximately 25 to 30 fighters were seen; 1 probably a Jack; another probably an Irving. The others were unidentified. No attacks resulted but 6 passes were made against the B-29's.

(2) One enemy aircraft followed a B-29 from 200 miles before landfall to the initial point. The fighter had its running lights on and was noticed pulling ahead on the right side of the B-29 at about 2 o'clock. It circled left in front of the B-29, barely missing a collision.

(3) A pass from 12 o'clock level was made by an enemy aircraft at 10,400 feet. The fighter closed in to approximately 100 yards and broke away to the left.

(4) One enemy aircraft with running lights on, at 10 o'clock level, at 10,000 feet, closed to within approximately 100 yards, breaking away to the right.

(5) An enemy aircraft, thought to be a Jack, came in from 8 o'clock level at 10,000 feet to within 200 yards when it broke away at 5:30 o'clock and went into a steep climb.

S E C R E T

(6) An unidentified single-engine aircraft came in at 6 o'clock level at 10,000 feet to within 800 yards and went into a steep climb at which time its wing lights disappeared.

(7) An Irving without lights was sighted approximately 25 yards back of a B-29 tail.

b. Mission 283, 22/23 July, Ube:

(1) An estimated 20 to 25 Japanese fighters were encountered on this mission. Aircraft types reported include: 6 to 10 single-engine aircraft; 1 Nick, and 4 other twin-engine aircraft; and 8 to 11 unidentified aircraft. Practically all enemy aircraft sighted were in the target area or between the target and land's end.

(2) The crew of 1 B-29 reported a pass and a series of 4 attacks by 1 twin-engine fighter which was believed to be a Nick. In each instance the approach was from the rear. The B-29 was not damaged, and no claim of damage to the fighter was made.

(3) Another B-29 crew reported a coordinated pass by 4 twin-engine fighters, otherwise unidentified, which approached in pairs, 1 behind the other, from 2 o'clock level. According to the report, all 4 aircraft had running lights on and broke away left after closing to 100 yards. There were no other attacks or passes reported.

(4) At landfall, an unidentified aircraft with running lights on, spotted a B-29 and followed it to the target. Another B-29 was picked up at the initial point by an unidentified aircraft and was followed to the target; thence to land's end. The pursuing aircraft was observed to have running lights on. Three bomber crews related that soon after bombs away, they sighted a formation of 3 single-engine fighters, each with running lights on, thusly: left wing, green; center, white; and right wing, red. The trio, it was stated, was flying abreast and in the general direction of the target.

c. Mission 291, 25/26 July, Kawasaki:

(1) A token force of 25 Japanese fighters were airborne on this mission. A few made feints, but none opened fire. The enemy had a tactical advantage in the weather since the moon was full and directly overhead at target time. The scattered, low clouds over eastern Honshu did not interfere with any plan for strong opposition. The reaction to this mission was in line with an obvious policy of conservation.

(2) Three passes, 2 from the tail and 1 from the nose, were reported. The aircraft figuring in the simulated attacks were identified as twin-engine type. Eight enemy aircraft were sighted on the bomb run, 4 between the target and land's end, and 4 after land's end. Two Japanese fighters were sighted between landfall and initial point. In an exceptional instance, an unidentified aircraft followed a B-29 from landfall to the initial point, through the target area, thence almost to land's end. Four Judys, 5 twin-engine enemy aircraft, and a single-engine enemy aircraft were identified.

* This report is based on evaluated information available after the compilation of the Consolidated Statistical Summary.

S E C R E T

PART II - ENEMY ANTI-AIRCRAFT

1. Mission No. 270 - Nippon Oil Company, Kadamatsui:

- a. The primary target was bombed by 59 aircraft of the 315th Wing between 1441Z-1601Z from 10,230-11,700 feet. Axes of attack averaged 310 degrees. Weather was reported as 4/10-8/10 undercast.
- b. Flak en route to and on withdrawal from the target was nil.
- c. Over the target, flak was described as meager, inaccurate, and heavy. Approximately 9 searchlights were observed in the target area. They were ineffective.
- d. No aircraft were lost or damaged as a result of flak on this mission.
- e. Searchlights were reported as tabulated below:

<u>Location</u>	<u>Coordinates</u>	<u>Number</u>
Landfall	33 02 N - 133 06 E	3
Uwa Jima	33 13 N - 132 34 E	2
Matsuyama	33 50 N - 132 46 E	4
Kaganoishi	33 28 N - 132 24 E	6
Oku	33 24 N - 132 02 E	2
Yashiro Shima	33 53 N - 132 15 E	3
Heigun Shima	33 47 N - 132 14 E	1
Naga Shima	33 50 N - 132 07 E	6
Bofu	34 03 N - 131 34 E	2
Imi	33 40 N - 131 35 E	4
Nagasu	33 34 N - 131 23 E	3
Oita	33 14 N - 131 36 E	7
Saeki	32 58 N - 131 55 E	6
Takeda	32 58 N - 131 24 E	1
Tsurumi Saki	32 56 N - 132 05 E	1

2. Mission No. 283 - Ube Coal Liquefaction Company, Ube:

- a. The primary target was bombed by 72 aircraft of the 315th Wing between 1503Z-1640Z from 12,400-15,460 feet. Axes of attack averaged 301 degrees. Weather was reported as 4/10-10/10 undercast.
- b. En route to the target meager, inaccurate, medium flak was encountered at landfall (33 02 N - 133 05 E).
- c. Over the target, flak was described as nil to meager,

S E C R E T

inaccurate, and medium. Seven ineffective searchlights (4 white - 3 green) were observed in the target area.

d. On withdrawal, meager, inaccurate, and heavy flak was encountered at Kokura (33 53 N - 130 54 E).

e. No aircraft were lost or damaged as a result of flak on this mission.

f. Searchlights were observed as tabulated below:

<u>Location</u>	<u>Coordinates</u>	<u>Number</u>
Uwajima	33 13 N - 132 33 E	2
Higashi Tada	33 25 N - 132 31 E	2
Tokuyama	34 03 N - 131 49 E	3
Bofu	34 03 N - 131 34 E	1
Shimonoseki	33 57 N - 130 57 E	10
Kokura	33 53 N - 130 54 E	10-23
Nakatsu	33 35 N - 131 12 E	5
Airfield	33 29 N - 131 21 E	6
Oita	33 13 N - 131 37 E	2
Takeda	32 58 N - 131 24 E	1
Nobeoka	32 34 N - 131 40 E	1

g. Three ground-to-air rockets were observed in the target area.

3. Mission No. 291 - Target 116, 127, Kawasaki Area:

a. The primary target was bombed by 75 aircraft of the 315th Wing at 251323Z and 251403Z from 16,500-18,100 feet. Axes of attack averaged 41 degrees. Weather was reported as CAVU to 4/10 cloud cover.

b. En route to the target, flak was encountered as tabulated below:

<u>Location</u>	<u>Coordinates</u>	<u>Remarks</u>
Landfall	34 36 N-138 51 E	Meager and inaccurate, medium.
Initial Point	34 57 N-139 08 E	Meager to moderate, inaccurate, heavy.
Yokosuka	35 17 N-139 40 E	Moderate, accurate to inaccurate, heavy.
Fujisawa	35 20 N-139 30 E	Intense and inaccurate, medium.

c. Heavy flak was moderate and generally inaccurate over the Yokohama area, building up to intense and generally accurate fire over the target. Deviations were mostly level and trailing. Diving turns

S E C R E T

were effective as evasive action. A ship in Yokohama Harbor was observed firing 6 guns. Medium flak was intense but inaccurate. Thirty to 50 generally effective searchlights were observed in the target area. Coordination between lights and between lights and batteries was good. Rope was effective as a counter measure in a few cases, but most pick-ups seemed to be visual.

d. On withdrawal flak was encountered as tabulated below:

<u>Location</u>	<u>Coordinates</u>	<u>Remarks</u>
South Tokyo	35 36 N - 139 44 E	Moderate and inaccurate, heavy and medium.
Futtsu Saki	35 18 N - 139 50 E	Meager and inaccurate, heavy.
Kisaraziu	35 23 N - 139 56 E	Moderate to intense and accurate to inaccurate, heavy.
Chiba	35 36 N - 140 07 E	Meager and inaccurate, heavy and medium.

e. One aircraft was lost to flak over the target. Of 75 aircraft attacking, 13, or 17%, sustained flak damage.

f. Searchlights in addition to those in the target area were reported as follows:

<u>Location</u>	<u>Coordinates</u>	<u>Number</u>
Landfall	34 36 N - 138 51 E	12
I. P.	34 57 N - 139 08 E	3
Yokosuka	35 17 N - 139 40 E	12
Hiratsuka	35 19 N - 139 21 E	6
South Tokyo	35 36 N - 139 44 E	12
Ships in Tokyo Bay		3
Futtsu Saki	35 18 N - 139 50 E	2
Chiba	35 36 N - 140 07 E	6
	35 27 N - 140 08 E	8
Taito Saki	35 18 N - 140 25 E	4
O-Shima	35 45 N - 139 24 E	2
Manazuma Misaki	35 09 N - 139 09 E	4

g. Miscellaneous AA Observations: Five parachutes flares were reported in the target area, 1 of which split into 2 pieces which descended slowly.

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

PART III - DAMAGE ASSESSMENT REPORTS

The following damage assessment reports cover damage to targets as a result of Mission Number 270. For damage resulting from Missions Number 283 and 291, see Damage Assessment Reports Number 175 and 173 contained in the Tactical Mission Report for Mission Number 303, 310, and 315.

SECTION A - DAMAGE ASSESSMENT

90.32-672
NIPPON OIL REFINERY
KUDAMATSU PLANT

20 Air Force Mission 270, 15-16 July 1945 315th Wing

1. SUMMARY:

a. Damage is widespread throughout the plant with almost all the major units showing structural damage.

b. About 1% of the total storage capacity was damaged as a result of mission 238 and is considered as old damage. An additional 60% of damage was inflicted on the total storage capacity by mission 270.

c. The railroad spur leading to the plant area, which suffered several direct hits, was almost completely destroyed.

d. Damage to this target resulting from mission 238 is listed in the itemization of damage as old damage. Damage to Target 825 resulting from mission 238 is covered by CIU Damage Assessment Report 178.

2. SUMMARY OF DAMAGE TO TANKAGE:

	<u>TYPE OF STORAGE</u>			
	CRUDE	INTERMEDIATE	REFINED PRODUCTS	TOTAL
Original capacity - bbls	400,000	71,300	115,700	587,000
New damage - bbls	314,000	37,500	7,600	359,100
Percent	78	52	6	61
Old Damage - bbls			5,600	5,600
Percent			5	1
Removal - bbls	---	---	---	---
Percent	-	-	-	-
Total damage & removal - bbls	314,000	37,500	13,200	364,700
Percent	78	52	11	62

3. ITEMIZATION OF DAMAGE:

Number	Identification	Sq. Ft.	Description of damage, etc.
1		4,000	Direct hit
2		4,000	Near miss - destroyed
3		1109,000	Minor damage - destroyed
4		2,800	Discoloration
5		1,800	Destroyed
6		1,000	"
7		2,800	"
8		36,000	"
9		11,000	Direct hit
10		11,000	Near miss
11		11,000	Near miss
12		900	Destroyed

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Number	Identification	Square Feet	672 - TANKS	Description of damage, etc.
			Destroyed	
13		900	"	
14		900	"	
15		900	"	
16		900	"	
17		900	"	
18		900	"	
19		900	"	
20		4,000	"	
21		4,000	"	
22		4,000	"	
23		2,600	"	
24		2,600	"	
25		2,600	"	
26		9,000	"	
27		9,000	"	
28		9,000		Direct hit
29		109,000		Roof disturbance
30		1,500		Destroyed
31		1,500		

672 BUILDINGS AND REFINING
STRUCTURES

Number	Identification	Square Feet	Description of damage, etc.	
			Destroyed	
32	Misc. small bldgs., work shops, stores, etc.			Roof disturbance
33	" " " " "			Destroyed
34	" " " " "			"
35	" " " " "			"
36	" " " " "			"
37	" " " " "			"
38	" " " " "			"
39	" " " " "			"
40	" " " " "			"
41	" " " " "			"
42	" " " " "			"
43	" " " " "			"
44	Tanks			Near miss
45	Oil treatment plant			Roof disturbance
46	" " "			Destroyed
47	Drum making & filling sheds			Structural damage
48	" " " " "			" "
49	Workshop			Destroyed
50	"			" (old damage)
51	Administrative offices			"
52	" " "			"
53	Drum making and filling sheds			Structural damage
54	" " " " "			" "
55	" " " " "			"
56	Workshops			Destroyed (old damage)
57	Administrative offices			Near miss
58	Not identified			Structural
59	" "			Destroyed
60	" "			Destroyed (old damage)
61	Reported wax plant			Structural
62	" " "			"
63	Unidentified			Destroyed (old damage)
64	"			"
65	"			"
66	Rounddown tanks building.			"
67	Unidentified			"
68	"			"
69	"			"

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Number	Identification	Description of damage, etc.
70	Unidentified	Minor
71	"	"
72	Power house	Destroyed
73	Power house	Structural
74	Pump house	Destroyed
75	Unidentified	Roof disturbance
76	Refining stills	Minor damage
77	Cracking plant	Structural
78	" "	Destroyed
79	" "	"
80	" "	Near miss
81	" "	Destroyed
82	" "	Minor damage
83	Unidentified	gutted
84	Reported acid recovery plant	Destroyed
85	Unidentified	Destroyed
86	"	"

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Target 90.32-825
 Hitachi Mfg. Co.
 20 AF-Missions 238, 270
 29 June, 15-16 July 1945
 Damage Assessment Rpt 178
 C.I.U.- 20 AF

KEY

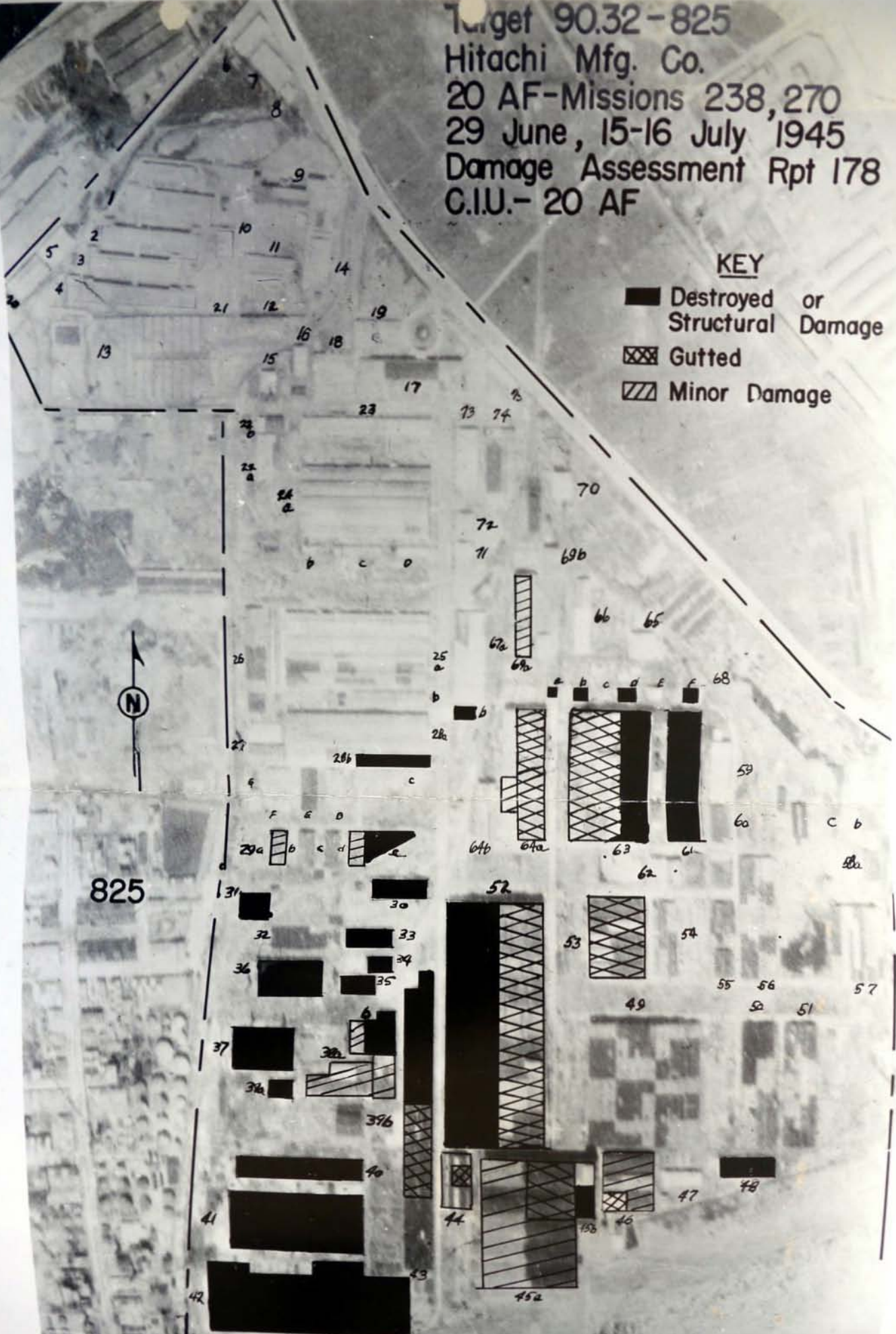
- Destroyed or Structural Damage
- ▨ Guttered
- ▧ Minor Damage



825

2884 C 35 PTU 18 AUG 45

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

SECTION B - DAMAGE ASSESSMENT

90.32-825
HITACHI MFG. CO., KASADO

XXI Bom Com Mission 238, 29 June 1945

315th Wing

XXI Bom Com Mission 270, 15-16 July 1945

315th Wing

1. SUMMARY:

Original roof area: 1,311,500 sq. ft.

Total damage to date: 648,860 sq. ft. - 49% (25% destroyed)

5 large heavy industrial type buildings - structurally damaged
2 probable boiler houses - destroyed or severely damaged
5 large warehouse type buildings - destroyed or damaged

A functional or construction analysis of this target was not available thus making it impossible to determine the function of all of the buildings concerned. The total original roof area of the plant was calculated - scale of photos was derived from reference B.

Note: The primary target of the above missions was the Nippon Oil Co., 90.32-672 (see CIU Damage Assessment Report 179), located immediately W of the Hitachi Mfg. Co. Separation of damage between the two strikes was not made on this secondary target. Probably most of the damage was inflicted by mission 238.

2. STATISTICAL SUMMARY OF DAMAGE:

<u>Total damage to date</u>	<u>Square feet of roof area</u>	<u>Percent of original roof area*</u>
Destroyed	142,610	10.5
Structural damage	212,500	16.2
Superficial:		
1. Guttred	175,750	13.4
2. Minor roof damage	118,000	9.0
Total damage	648,860	49.0

*1,311,500 sq. ft.

3. ITEMIZATION OF DAMAGE:

Number	Roof area sq. ft.	DAMAGE IN SQ. FT.		SUPERFICIAL	
		Destroyed	Structural	Guttred	Minor
28b	8,400	8,400			
29a	4,500				4,500
29d	3,950				3,950
29e	2,400	2,400			
30	8,700	8,700			
31	3,150	3,150			
33	4,200	3,300			
34	2,600	2,600			
35	2,600	2,600			
36	10,300		10,300		
37	15,800	15,800			

*Based on 20th A.F. C.I.U. D.A. Report No. 179

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ITEMIZATION OF DAMAGE, cont'd.
DAMAGE IN SQUARE FEET

Number	Roof area sq. ft.	Destroyed	Structural	SUPERFICIAL	
				Gutted	Minor
38a	15,300				15,300
38b	9,500		9,500		
39a	2,100	2,100			
40	15,000	15,000			
41	21,000		21,000		
42	70,000	19,000	59,000		
43	76,000	40,400		15,000	
44	8,000			2,000	
45a	74,000			9,000	65,000
45b	7,000	3,900			
46	14,000			2,450	12,350
48	4,200		4,200		
52	110,000		59,000	59,000	
53	20,500			20,500	
61	27,500		27,500		
63	66,000		22,000	44,000	
64a	33,000			15,000	4,300
67b	300	300			
68a	300	300			
68b	1,050	1,050			
68d	1,560	1,560			
68e	1,050	1,050			
TOTALS:	1,311,500	142,610	212,500	175,750	118,000

Note: Numbered buildings appearing on inclosure No. 1 but not in the above list were not damaged.

References: A. MAF Air Objective Folder 90.32
B. J.T.G. Illustration 90.32-672-TL 10 May 1945

Photos: Pre-strike: 3PR51100-2: 37 3PR51194-2: 106, 107
Post-strike: 3PR51390-4L: 130-132

Inclosure: 1: Annotated enlargement (3PR51100-2: 37)

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Target 90.32-825

Hitachi Mfg. Co.

20 AF-Missions 238,270

29 June, 15-16 July 1945

Damage Assessment Rpt 178

C.I.U.- 20 AF

KEY

Destroyed or Structural Damage

Gutted

Minor Damage

825

2884 C 35PTU 18AUG 45

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Target 90.32-825

Hitachi Mfg. Co.

20 AF-Missions 238,270

29 June, 15-16 July 1945

Damage Assessment Rpt 178

C.I.U.- 20 AF

KEY

- Destroyed or Structural Damage
- ▨ Guttered
- ▤ Minor Damage



825

2894

35 PTU 19 AUG 45

CONFIDENTIAL

- SECRET -

TWENTIETH



AIR FORCE

CONSOLIDATED STATISTICAL SUMMARY OF COMBAT OPERATIONS

FORM 3470, 283 & 291

MISSION NO.

15, 22 and 25 July 1945

XXI BC Field Order No. 99

20th AF Field Orders Nos. 4 & 7

Mission #270 - 315th Wing - 70 aircraft - Nirpon Oil Co., Kudamatsu

Mission #283 - 315th Wing - 80 aircraft - Ube Coal Liquefaction Co.

Mission #291 - 315th Wing - 70 aircraft - Mitsubishi Oil Refinery & Hayama Petroleum Center, Kawasaki

EFFECTIVENESS OF MISSIONS

Aircraft Airborne 238
Percent Of Aircraft On Hand 57.9%

Aircraft Bombing Primary Targets. . . 206
Percent Of Bombing Aircraft Airborne. 88.8%

Bombs Dropped On Primary Targets. 1799 Tons

Bombs Dropped On Other Targets. 74 Tons

Bombing Results - Preliminary reports indicate the following damage:

Mission #270 - 20% storage capacity destroyed, 10% of refinery units destroyed.

Mission #283 - Scattered damage.

Mission #291 - Target 116 - 32% storage capacity destroyed.

Target 127 - 36% storage capacity destroyed.

COST OF MISSIONS

Aircraft Lost 1
Percent Of Aircraft Airborne. 0.4%

Aircraft Damaged. 17
Percent Of Aircraft Airborne. 7.1%

Crew Member Casualties. 12
Percent Of Total Participating. 0.5%

Aircraft Landing At Iwo Jima. 16

DATE OF ISSUE

1 August 1945

- SECRET -

33RD STATISTICAL CONTROL UNIT

S E C R E T

ANNEX

E

CONSOLIDATED STATISTICAL SUMMARY

Missions No. 270, 283, and 291

15, 22, and 25 July 1945

S E C R E T

SECRET

AIRCRAFT PARTICIPATING

MISSION 270, 283 & 291

DATE 15, 22 & 25 July 1945

21 JUL 45 1945																
UNIT	A/C CN HAND	A/C SCHED- ULED	A/C FAILING TO TAKE OFF	A/C A/C- LOST	TIME OF TAKE OFF			TIME OF RETURN			A/C BOMBING PRIMARY TARGET	A/C BOMBING SECONDARY TARGET	A/C BOMBING OTHER TARGETS	AIRCRAFT COMPLETING OTHER TYPE MISSIONS	TOTAL A/C EFFECTIVE	TOTAL A/C NON- EFFECTIVE
					DATE	FIRST	LAST	DATE	FIRST	LAST						
315WG	131	69	3	69 b	15 July	0730 Z	0847 Z	Mission #270			59	-	3	-	62	7
		2 a	-	2				15 July	2200 Z	2340 Z						
315WG	137	80	4	80 c	22 July	0730 Z	0850 Z	Mission #283			72	-	4	-	76	4
		2 a	-	2				22 July	2144 Z	2355 Z						
315WG	143	80	3	83 d	25 July	0630 Z	0738 Z	Mission #291			75	-	1	-	76	7
		2 a	-	2				25 July	1951 Z	2120 Z						
TOTAL	411	229	10	232							206	-	8	-	214	18
		6	-	6												

- a Wind run aircraft.
- b Includes 3 spare aircraft.
- c Includes 4 spare aircraft.
- d Includes 6 spare aircraft.

Aircraft Landing At Iwo Jima:

Mission #270 - 5 aircraft.
Mission #283 - 8 aircraft.
Mission #291 - 3 aircraft.

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A I R C R A F T P A R T I C I P A T I N G

MISSION 270, 283 & 291

DATE 15, 22 & 25 July 1945

19 JUL 22 & 25 JUL 1945

UNIT	A/C ON HAND	A/C SCHEDULED	A/C FAILING TO TAKE OFF	A/C AIRBORNE	TIME OF TAKE OFF			TIME OF RETURN			A/C BOMBING PRIMARY TARGET	A/C BOMBING SECONDARY TARGET	A/C BOMBING OTHER TARGETS	AIRCRAFT COMPLETING OTHER TYPE MISSIONS	TOTAL A/C EFFECTIVE	TOTAL A/C NON-EFFECTIVE
					DATE	FIRST	LAST	DATE	FIRST	LAST						

- a Wind run aircraft.
- b Includes 3 spare aircraft.
- c Includes 4 spare aircraft.
- d Includes 6 spare aircraft.

Aircraft Landing At Iwo Jima:

Mission #270 - 5 aircraft.
 Mission #283 - 8 aircraft.
 Mission #291 - 3 aircraft.

S E C R E T

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BREAKDOWN OF ALL AIRCRAFT FAILING TO BOMB PRIMARY TARGET

MISSION

DATE 270, 283, & 291

15, 22 & 25 July 1945

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
							<u>Mission #270</u>								
315WG	4	-	2	3 <u>a</u>	-	1 <u>a</u>	-	-	-	-	-	-	-	-	-
							<u>Mission #283</u>								
315WG	3	-	4	-	-	-	-	-	-	-	-	-	1 <u>b</u>	-	-
							<u>Mission #291</u>								
315WG	5	-	1	1 <u>a</u>	-	-	-	-	-	1	-	-	-	-	-
TOTAL	12	-	7	4	-	1	-	-	-	1	-	-	1	-	-

- a Air crew personnel errors,
b Observed distress flares and circled position until relieved.

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S E C R E T

MISSIONS 270, 283, & 291
 DATES 15, 22 & 25 July 1945

B O M B I N G R U N

UNIT	TARGET BOMBED		AIRCRAFT DROPPING BOMBS	TIME OF RELEASE		ALT. OF RELEASE		TARGET VISIBLE			TARGET NOT VISIBLE			
	NAME OF TARGET	TYPE		EARLIEST	LATEST	LOWEST	HIGHEST	VISUAL SIGHTING ONLY	RADAR RUN WITH VISUAL CORRECTIONS	DROPPING ON LEADER	VIS. SIGHTING ON REFERENCE OR OFFSET PT.	RADAR RUN	DEAD RECK- ONING	DROPPING ON LEADER
315VG	Nippon Oil Co., Kudamatsu	P	59	1441 Z	1601 Z	Mission #270 10230	11700	1	6	-	-	-	-	-
	Ube Coal Liquefaction Co.	P <u>a</u>	2	1407 Z	1438 Z	10900	11400	-	-	-	-	52	-	-
	Uda Airfield	TO	1 <u>b</u>	1527 Z	-	11700	-	-	-	-	-	2	-	-
	Shimizu	TO	1	1518 Z	-	10800	-	-	-	-	-	1	-	-
	Kochi Naval Base	TO	1	1513 Z	-	10650	-	-	-	-	-	1	-	-
	Unknown	TO	1	1527 Z	-	10600	-	-	-	-	-	1	-	-
												1	-	-
315VG	Ube Coal Liquefaction Co.	P	72	1503 Z	1640 Z	Mission #283 12400	15460	3	1	-	1	67	-	-
	Nippon Oil Refinery	P <u>a</u>	2	1422 Z	1428 Z	12500	13200	-	1	-	-	1	-	-
	Ogari	TO	1	1606 Z	-	13290	-	-	-	-	-	1	-	-
	Hoso Shima Naval Airfield	TO	1	1656 Z	-	13500	-	-	-	-	-	1	-	-
	Shimizu	TO	1	1523 Z	-	10100	-	-	-	-	-	1	-	-
	Shimoda	TO	1	1505 Z	-	9800	-	-	-	-	-	1	-	-
315VG	Mitsubishi Oil Refinery & Hayama Petroleum Center, Kawasaki	P	75	1323 Z	1403 Z	Mission #291 16500	18100	3	-	-	-	72	-	-
	Shimizu Aluminum Plant	P	2 <u>a</u>	1234 Z	1237 Z	16900	17400	-	-	-	-	2	-	-
	Shimizu	TO	1	1344 Z	-	14600	-	-	-	-	-	1	-	-
TOTAL	Primary Targets	P	212					7	8	-	1	196	-	-

a Primary target for wind run aircraft.
b Also bombed primary target.

S E C R E T

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DISPOSITION OF BOMBS

MISSION 270, 283 & 291

DATE 15, 22 & 25 July 1945

UNIT	TYPE OF BOMB	FUZE SETTING		LOADED ON AIRBORNE AIRCRAFT		RELEASED ON TARGETS						JETTISONED		RETURNED		OTHER	
		Nose	Tail	No.	Tons	PRIMARY A		PRIMARY B		TARGETS OF OFF.		No.	Tons	No.	Tons	No.	Tons
						No.	Tons	No.	Tons	No.	Tons						
315WG	AN-M64 500# G.P.	.1	.01	2363	590.7	1907	476.8	68	17.0	115	28.7	272	68.0	1	.2	-	-
Mission #270																	
315WG	AN-M64 500# G.P.	.1	.01	2792	698.0	2479	619.8	-	-	144	36.0	168	42.0	1	.2	-	-
	AN-M81 260# Frag.	Inst.	N.D.	136	17.0	-	-	136	17.0	-	-	-	-	-	-	-	-
Mission #283																	
315WG	AN-M64 500# G.P.	.1	.025	2955	738.8	2600	650.0	72	18.0	36	9.0	214	53.5	1	.3	32 ^c	8.0
Mission #291																	
TOTAL	AN-M64 500# G.P.			8110	2027.5	6986	1746.6	140	35.0	295	73.7	654	163.5	3	.7	32	8.0
	AN-M81 260# Frag.			136	17.0	-	-	136	17.0	-	-	-	-	-	-	-	-
	TOTAL			8246	2044.5	6986	1746.6	276	52.0	295	73.7	654	163.5	3	.7	32	8.0

^a Main force.

^b Wind run aircraft.

^c One aircraft seen to explode over target prior to bombing run.

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S E C R E T

MISSION 270, 283 & 291
DATE 15, 22 & 25 July 1945

AIRCRAFT LOST AND DAMAGED - PERSONNEL CASUALTIES

UNIT	AIRCRAFT LOST							AIRCRAFT DAMAGED										PERSONNEL CASUALTIES				
	ENEMY A/C	ENEMY A/A	ENEMY A/C & A/A	ACC. & MECH	OTHER	UN- KNOWN	TOTAL	ENEMY A/C	ENEMY A/A	ENEMY A/C & A/A	ACC. & MECH	OWN GUNS	OTHER	UN- KNOWN	TOTAL		TOTAL PARTICI- PATING	KILLED	MISS- ING	WOUNDED & INJURED	TOTAL CASUALTIES	
															MAJOR	MINOR						
315WG							None									None	727				None	
315WG							None	-	-	-	1	-	3	-	-	-	838	-	-	1	1	
315WG	-	1 a	-	-	-	-	1	-	13	-	-	-	-	-	4	9	870	-	10	1	11	
TOTAL	-	1	-	-	-	-	1	-	13	-	1	-	3	-	4	13	2455	-	10	2	12	

a Aircraft suffered direct flak hit over target and was seen to explode. 10 crew members aboard, all missing.

S E C R E T

S E C R E T

MISSION 270, 283 & 291

DATE 15, 22 & 25 July 1945

ENEMY OPPOSITION AND AMMUNITION EXPENDITURE

UNIT	ENEMY A/C SIGHTED	ATTACKS BY E/A	ENEMY A/C DESTROYED & DAMAGED			50 CALIBER AMMUNITION EXPENDITURE				
			DESTROYED	PROBABLY DESTROYED	DAMAGED	FIRE IN COMBAT	TEST FIRED	JETTISONED	ON LOST A/C	TOTAL
315 WG	25-30	-			Mission #270	-	3349	1425	-	4774
315 WG	20-25	4			Mission #283	200	3775	-	-	3975
315 WG	20-25	-			Mission #290	30	3601	-	600	4231
TOTAL	65-80	4				230	10725	1425	600	12980

S E C R E T

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MISSIONS 270, 283 & 291DATES 15, 22 & 25 July 45

FLIGHT DATA & FUEL CONSUMPTION

MISSION NUMBER	#270	#283	#291
UNIT	315TH WING	315TH WING	315TH WING
AIRCRAFT CONSIDERED	61	70	76
AVERAGE FLYING TIME	14:58	15:05	14:00
FUEL CONSUMED:			
Average	5548	5611	5392
Maximum	6026	5986	5690
Minimum	5180	5234	5046
FUEL REMAINING:			
Average	1066	879	1109
Maximum	1697	1251	1485
Minimum	459	499	795
AVG. GALS. USED PER HOUR	370.6	372.1	385.1
TOTAL USED ON AIRBORNE A/C	375321	444583	440475

WEIGHT DATA

NUMBER AIRCRAFT AIRBORNE	71	82	85
AVG. BASIC WT. OF AIRCRAFT	71386	71133	71104
AVERAGE USEFUL LOAD	62497	62525	62369
AVG. NO. OF BOMBS LOADED	33.3 (M-64)	Mixed Load	34.76 - M-64
AVG. WT. OF BOMBS LOADED	17806	18656	18664
AVERAGE FUEL LOADED	6622	6489	6503
AVG. WT. OF FUEL LOADED	39732	38934	39018
AVERAGE MISC. WEIGHT	4959	4935	4687
AVG. GROSS WT. AT TAKE OFF	133883	133658	133473

Bomb Weights: M-64 (TNT) - 535 lbs.
M-81 - 265 lbs.
M-64 (Comp B) - 550 lbs.

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ANNEX

F

XXI BOMBER COMMAND AND TWENTIETH
AIR FORCE FIELD ORDERS

Missions No. 270, 283, and 291

15, 22, and 25 July 1945

SECRET

SECRET

SECRET

Auth: CG XXI BC

Initials: 67

Date: 15 July 45

XXI Bomber Command

GUAM

15 July 1945 - 0800K

FIELD ORDERS)

NUMBER 99)

Maps: Japan Aviation Chart: 1:218,880

1. Omitted.

2. XXI Bomber Command attacks target No. 90.32-672 on 16 July 1945.

3. a. Omitted.

b. Omitted.

c. Omitted.

d. Omitted.

e. 315th Wing:

(1) Primary Radar Target: 90.32-672 NIPPON OIL COMPANY,
KUDOMATSO PLANT.

MPI

Force Required

048016

70 A/C

MPI Reference: XXI BomCom Litho-Mosaic TOKUYAMA.

(2) Route: Base
Iwo Jima
330130N-13306E
3333N-1322530E (IP)
Target (3359N-1315230E)
3334N-13126E
3255N-13205E
Iwo Jima
Base.

(3) Altitude enroute to target: 5,000 - 5,800 feet and 7,000 -
7,800 feet.

(4) Altitude of Attack: 10,000 - 11,000 feet.

(5) Bomb Load: 500 lb GPs fused 1/10 nose and 1/100 tail.

(6) Intervalometer Setting: Minimum.

(7) Method of Attack: By individual A/C with force compressed
over the target to within 30 minutes.

(8) Take-off Time: 151730K.

4. Tactical Mission Number 270.

5. a. (1) XXI BomCom SOI and SOP for strike reports, contact reports
and IFF procedures.

(2) Each squadron will be equipped to barrage jam the region
190-210 megacycles.

(3) Observations of the extent and reliability of the barrage
will be made while over the target.

SECRET

505/2

SECRET

F.O. #99

- (4) Spot jamming will be conducted over the frequency ranges 180-190 and 210-220 megacycles, as desired by the wing Commanding General and as governed by the capacity of each wing.
- (5) Jammers will be kept in operation at all times when closer than 50 miles to HONSHU and will be turned off at all other times, except for preflight and postflight frequency checks, which are to be made on the ground while the jammers are installed in the airplanes.

b. Command Post: Hq., XXI BomCom, GUAM.

BY COMMAND OF MAJOR GENERAL LeMAY:

A W KISSNER
Brigadier General, USA
Chief of Staff

OFFICIAL:

John B. Montgomery
JOHN B MONTGOMERY
Colonel, G. S. C.
D C/S, Operations

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- 2 - CG, 73rd Bomb Wing
- 2 - CG, 313th Bomb Wing
- 2 - CG, 314th Bomb Wing
- 2 - CG, 315th Bomb Wing
- 1 - CG, VII Fighter Comd (CTG 93.4)
- 1 - CO, 3rd Photo Recon Sq
- 6 - A-3 Tactics, XXI BC
- 4 - A-2, XXI BC
- 2 - 33rd S.C.U., XXI BC
- 1 - Communications, XXI BC
- 1 - OAS, XXI BC
- 2 - C.I.U., XXI BC
- 1 - A-2 Reporting, XXI BC

SECRET

SECRET

SECRET

Auth: CG, XXI Bomber Command

Initials: A. T. C.

Date: 15 July 1945

FIELD ORDERS)

NUMBER 99)

XXI BOMBER COMMAND

GUAM

15 July 1945 - 0900K

AMENDMENT NUMBER 1.

Change paragraph 3. e. (1) and (2) to read:

(1) MPI Reference: XXI Bomber Command Litho-Mosaic TOKUYAMA Approach.

(2) Route: Base
Iwo Jima
3255N - 13205E
3334N - 13126E
Target (3359N - 1315230E)
330130N - 13306E
Iwo Jima
Base

BY COMMAND OF MAJOR GENERAL LEMAY:

A W KISSNER
Brigadier General, USA
Chief of Staff

OFFICIAL:

William H. Montgomery
for J B. MONTGOMERY
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- 2 - 33rd SCU, XXI Bomber Command
- 1 - Communications, XXI Bomber Command
- 1 - OAS, XXI Bomber Command
- 2 - CIU, XXI Bomber Command
- 1 - A-2 Reporting, XXI Bomber Command
- 4 - A-2, XXI Bomber Command
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SECRET

Auth: CG, Twentieth Air Force
Initials: C. C.
Date: 22 July 1945

FIELD ORDERS)
NUMBER 4)

TWENTIETH AIR FORCE
GUAM
22 July 1945 - 0500K

Maps: Japan Aviation Chart 1:218,880.

1. Omitted.
2. Twentieth Air Force attacks target 90.32 - 1841 on night of 22/23 July 1945.
3. a. Omitted.
b. Omitted.
c. Omitted.
d. Omitted.
e. 315th Wing:
 - (1) Primary visual and radar target: 90.32 - 1841, UBE COAL LIQUEFACTION CO.

MPI

FORCE REQUIRED

097122

80 A/C

MPI Reference: XXI Bom Com Litho-Mosaic UBE COAL LIQUEFACTION CO.

- (2) Route:

Base
Iwo Jima
3301N - 13306E
334330N - 13141E (IP)
TARGET
3240N - 13150E
Iwo Jima
Base.

- (3) Altitude of Attack: 12,000 - 13,000 ft.
- (4) Bomb Load: 500 lb GPs fused 1/10 nose, 1/100 tail.
- (5) Method of Attack: By individual aircraft employing direct synchronous radar bombing methods.
- (6) Takeoff: 221730K

x. Omitted.

4. Tactical Mission Number - 283

5. a. (1) Twentieth Air Force SOI and SOP for strike reports, contact reports and IPF procedures.

b. Command Post: Hq, Twentieth Air Force, GUAM.

S E C R E T

S E C R E T

F.O. #4

BY COMMAND OF MAJOR GENERAL LELAY:

A W KISSNER
Brigadier General, USA
Chief of Staff

OFFICIAL:

John B Montgomery
JOHN B MONTGOMERY
Colonel, GSC
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- 1 - CO, 3rd Photo Recon Sq
- 6 - A-3 Tactics, Twentieth Air Force
- 2 - 33rd SCU, Twentieth Air Force
- 1 - Communications, Twentieth Air Force
- 1 - OAS, Twentieth Air Force
- 2 - CIU, Twentieth Air Force
- 1 - A-2 Reporting, Twentieth Air Force
- 4 - A-2, Twentieth Air Force

SECRET

SECRET

Auth: CG Twentieth Air Force
Initials RSJ
Date 25 July 1945

FIELD ORDERS)
NUMBER 7)

TWENTIETH AIR FORCE
GUAM
25 July 1945 - 0800K

Maps: Japan Aviation Chart 1:218,880.

1. Omitted.
2. Twentieth Air Force attacks target Nos. 90.17 - 117 - 127 - 130 on night of 25/26 July 1945.
3. a. Omitted.
b. Omitted.
c. Omitted.
d. 314th Wing:
 - (1) The 314th Wing will dispatch 2 special R.C.M. jamming aircraft on night of 25/26 July to orbit point 3530N - 13942E with a radius of 10 miles at the altitude of 19,000 and 19,500 feet for duration of strike.

e. 315th Wing:

- (1) Primary Radar Target: Petroleum Complex consisting of targets as follows:

No. 90.17 - 117	MITSUBISHI OIL REFINERY
No. 90.17 - 127	HAYANA PETROLEUM REFINERY
No. 90.17 - 130	ASAISHI PETROLEUM CO.

MFI

FORCE REQUIRED

121015

70 A/C

MFI Reference: XXI Bom Com Litho-Mosaic KAWASAKI URBAN AREA.

- (2) Route: Base
Iwo Jima
343630N - 13851E
3457N - 13909E (IF)
Target (3530N - 13944E)
3524N - 14024E
Iwo Jima
Base.
- (3) Altitudes:
 - (a) Enroute to target: 5,000 - 5,800 feet and
7,000 - 7,800 feet.
 - (b) Attack: 16,000 to 17,000 feet.
- (4) Bomb Load: 500 lb GP's-fused 1/10 nose and 1/40 tail.
Intervalometer setting: minimum.
- (5) The 315th Wing will notify 314th Wing time for arrival and departure of special R.C.M. jamming aircraft.
- (6) Take-off: 251630K.

SECRET

SECRET

F.O. #7

- x. (1) Method of attack: By individual A/C.
4. Tactical mission number: 291.
5. a. (1) The special jamming aircraft for the 314th Wing will be equipped to barrage jam the regions 190-210 and 72-84 megacycles. Spot jamming will be conducted over the frequency ranges 180-190 and 210-220 megacycles as desired by the Wing Commander and as governed by the capacity of each wing. In addition, all strikes aircraft will be equipped with one jammer within the barrage band listed above providing sufficient equipment is available.
- (2) 315th Wing will be equipped to barrage jam the region 190-210 megacycles. Spot jamming will be conducted over the frequency ranges 180-190, 210-220 and 72-84 megacycles as desired by the Wing Commander and as governed by the equipment available.
- (3) Observations of the extent and reliability of the barrage will be made while over the target.
- (4) Jammers will be kept in operation at all times when closer than 50 miles to the mainland, and will be turned off at all other times, except for preflight and postflight frequency checks, which are to be made on the ground while the jammers are installed in the airplanes.

b. Command Post: Hq., Twentieth Air Force, GUAM.

BY COMMAND OF MAJOR GENERAL LEMAY:

A W KISSNER
Brigadier General, USA
Chief of Staff

OFFICIAL:

John B. Montgomery
JOHN B. MONTGOMERY
Colonel, G. S. C.
D C/S, Operations

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| 2 - CG, 313th Bomb Wing | 1 - Comm., Twentieth Air Force |
| 2 - CG, 314th Bomb Wing | 1 - OAS, Twentieth Air Force |
| 2 - CG, 315th Bomb Wing | 2 - CIU, Twentieth Air Force |
| 1 - CG, VII Fighter Comd (CTG 93.4) | 1 - A-2 Reporting, Twentieth Air Force |
| 1 - CO, 3rd Photo Recon Sq. | 4 - A-2 Twentieth Air Force |

SECRET

SECRET

SECRET

Auth: CG, 20AF

Initials: U.T.C.

Date: 25 July 1945

FIELD ORDERS)
:
NUMBER 7)

TWENTIETH AIR FORCE
GUAM
25 July 1945 - 0900K

AMENDMENT NUMBER 1.

Change paragraph 2. to read:

2. "Target numbers 90.17 - 116 - 127 - 130"
3. e. "90.17 - 117" should read: "90.17 - 116".

BY COMMAND OF MAJOR GENERAL LEMAY:

A W KISSNER
Brigadier General, USA
Chief of Staff

OFFICIAL:

William H. Montgomery

J B MONTGOMERY
Colonel, G.S.C.
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- 1 - CO, 3rd Photo Recon Squadron
- 6 - A-3 Tactics, 20th Air Force
- 2 - 33rd SCU, 20th Air Force
- 1 - Communications, 20th Air Force
- 1 - OAS, 20th Air Force
- 2 - CIU, 20th Air Force
- 1 - A-2 Reporting, 20th Air Force
- 4 - A-2, 20th Air Force
- 1 - R.C.M. Office

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R E S T R I C T E D

ANNEX

G

DISTRIBUTION LIST

Missions No. 270, 283, and 291

15, 22, and 25 July 1945

R E S T R I C T E D

R E S T R I C T E D

DISTRIBUTION

TACTICAL MISSION REPORT

Copy No.

1	Commanding General, Army Air Forces
2	Commanding General, U.S. Army Strategic Air Forces (Rear)
3	Commanding General, U.S. Army Strategic Air Forces (Guam)
4 - 5	Chief of Staff, U.S. Army Strategic Air Forces (Guam)
6	Commanding General, Twentieth Air Force
7	Commanding General, Eighth Air Force (Okinawa)
8	Commander in Chief, U.S. Army forces, Pacific
9	Chief of Naval Operations, OP-16-V
10	Commander in Chief, Pacific Fleet (Adv Hq)
11	Commander in Chief, Pacific Fleet (Rear Hq)
12	Commander Air Force, Pacific Fleet
13	Commander, Third Fleet
14	Commander, Fifth Fleet
15	Commander, First Carrier Task Force
16	Commander, Marianas
17	Commanding General, U.S. Army Forces, Middle Pacific
18	Commanding General, Allied Air Forces, SWPA
19	Commanding General, Far East Air Forces
20	Commanding General, U.S. Strategic Air Forces in Europe
21	Commanding General, Mediterranean Allied Air Forces
22	Commanding General, Fifteenth Air Force
23 - 24	Commanding General, Seventh Air Force
25	Commanding General, VII Bomber Command
26 - 27	Commanding General, VII Fighter Command
28	Commanding General, Eleventh Air Force
29 - 33	Commanding General, 301st Fighter Wing
34	Command Hq, Allied Air Forces, SWPA ATTN: Senior Intelligence Officer, R.A.A.F.
35	Commander in Chief, U.S. Army Forces, Pacific ATTN: G-2 (For Section 22, RCM)
36	Officer in Charge, Joint Intelligence Center Pacific Ocean Areas
37	Commanding General, Army Air Forces ATTN: AC/AS Intelligence
38 - 67	Commanding General, Army Air Forces ATTN: AC/AS, Intelligence, Collection Division
68 - 69	Commanding General, U.S. Army Strategic Air Forces (Guam) ATTN: Intelligence
70	Commanding General, U.S. Army Strategic Air Forces (Guam) ATTN: Communications FOR: Counter Measures Air Analysis Center
71	Commanding Officer, Twentieth Air Force Lead Crew School
72	Brigadier General, H.S. Hansell, Jr.
73	Chief of Staff, Twentieth Air Force
74	Deputy C/S, Cpas, Twentieth Air Force
75	AC of S, A-2, Twentieth Air Force
76	Chemical Warfare Officer, Twentieth Air Force
77	Ordnance Officer, Twentieth Air Force
78	Director of Tactics, A-3 Twentieth Air Force
79 - 80	Historical Officer, Twentieth Air Force

R E S T R I C T E D

R E S T R I C T E D

81	Commanding General; 58th Bombardment Wing
82	Commanding General; 73rd Bombardment Wing
83	Commanding General; 313th Bombardment Wing
84	Commanding General; 314th Bombardment Wing
85	Commanding General; 315th Bombardment Wing
86	Commanding Officer; 3rd Photo Reconnaissance Sq
87	Commanding Officer; 41st Photo Reconnaissance Sq
88	Commanding Officer; 55th Reconnaissance Sq, Long Range Weather
89	Commanding Officer, Twentieth Air Force Combat Staging Center (Provisional)
90	Commanding Officer; 33rd Statistical Control Unit
91	Commanding Officer; 6th Bomb Group (VH)
92	Commanding Officer; 9th Bomb Group (VH)
93	Commanding Officer; 16th Bomb Group (VH)
94	Commanding Officer; 19th Bomb Group (VH)
95	Commanding Officer; 29th Bomb Group (VH)
96	Commanding Officer; 39th Bomb Group (VH)
97	Commanding Officer; 40th Bomb Group (VH)
98	Commanding Officer; 330th Bomb Group (VH)
99	Commanding Officer; 331st Bomb Group (VH)
100	Commanding Officer; 444th Bomb Group (VH)
101	Commanding Officer; 462nd Bomb Group (VH)
102	Commanding Officer; 468th Bomb Group (VH)
103	Commanding Officer; 497th Bomb Group (VH)
104	Commanding Officer; 498th Bomb Group (VH)
105	Commanding Officer; 499th Bomb Group (VH)
106	Commanding Officer; 500th Bomb Group (VH)
107	Commanding Officer; 501st Bomb Group (VH)
108	Commanding Officer; 502nd Bomb Group (VH)
109	Commanding Officer; 504th Bomb Group (VH)
110	Commanding Officer; 505th Bomb Group (VH)
111	Commanding Officer; 509th Composite Group
112	Commanding Officer; 15th Fighter Group (VLR)
113	Commanding Officer; 21st Fighter Group (VLR)
114	Commanding Officer; 414th Fighter Group (VLR)
115	Commanding Officer; 506th Fighter Group (VLR)
116	Reporting Unit; A-2; Twentieth Air Force (File Copy)
117 - 130	Reporting Unit, A-2, Twentieth Air Force

R E S T R I C T E D