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MISSION #22 NAGOYA "ERADICATE 3"
23 January 1945

2-5239-105

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| 2/12 Date | CS Initials | |

CONSOLIDATED MISSION REPORT

MISSION NUMBER 01

FIELD ORDER NUMBER 43

23 JANUARY 1945

XXI Bomber Command.

Mission No 22.

HEADQUARTERS
 73RD BOMBARDMENT WING
 APO #297, % POSTMASTER
 SAN FRANCISCO, CALIFORNIA

627-B10

2-5239-105

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S E C R E T

Headquarters
73rd Bombardment Wing
APO #237, % Postmaster
San Francisco, California

Mission Number ~~21~~
Field Order Number 43
Date of Mission:
23 January 1945

CONSOLIDATED MISSION REPORT

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Headquarters
XXI Bomber Com'd

Mission # 22

2-5239-105

S E C R E T

S E C R E T

Headquarters
73rd Bombardment Wing
APO #237, % Postmaster
San Francisco, California

Mission Number 21
Field Order Number 43
Date of Mission:
23 January 1945

CONSOLIDATED MISSION REPORT

TACTICAL NARRATIVE

The Target

Under ideal local weather conditions, 73 B-29's of the 73rd Bombardment Wing took off from Isely Field, Saipan, on the morning of 23 January 1945. The Wing Field Order had directed that two combat squadrons from each of the four Groups proceed to the Japanese Empire to bomb the important Mitsubishi Aircraft Engine Plant, just north of Nagoya. If this target could not be bombed visually, the task force was directed to bomb the City of Nagoya visually or by radar.

Route Out and
Primary Target

Following the take-off, which was completed between 222115Z and 22235Z, our combat squadrons proceeded northward, meeting increasing cloudiness as they approached the Empire. From landfall to and over the target an almost total undercast at 14,000 feet offered only fleeting glimpses of the ground and at bombing altitude (26,000 feet) a 5/10 cloud cover complicated an already difficult sighting problem. A brief break in the 9/10 cloud cover over the Mitsubishi Engine Plant permitted 28 B-29's to drop 166,000 pounds of GPs and IBs. Cloud cover, which closed in immediately had permitted only one squadron to obtain photographs; these, owing to the weather, are of poor quality. They do show near misses in the sub-assembly plant area, and 50 bursts within 5,000 feet of the aiming point. Further damage assessment must wait on Photo Reconnaissance.

Secondary Target

Those combat squadrons unable to bomb the primary target visually owing to the complete undercast bombed the City of Nagoya. Again, only one squadron was able to make a visual sighting; the two squadrons which followed it were forced to sight by radar. The city was hit with 162,000 pounds of GPs and IBs. Photographs were made through a break in the cloud cover which showed 50 hits on the eastern edge of the city and 15 hits in the vicinity of the Nagoya RR Station.

Enemy Opposition

Enemy opposition was severe. There were 626 separate attacks, beginning at landfall and increasing to serious proportions in the target area. The enemy was definitely in position, waiting for our formations. Attacks continued until our aircraft were 30 miles out to sea, on the return flight. Although there was an increase in the coordinated attacks, the enemy is still making the single aggressive thrust by the individual pilot the mainstay of his defense.

Losses

Increasingly tight formation flying held our losses down to one B-29 which crashed 45 miles east of Daio Saki light as the result of enemy aircraft attack and antiaircraft fire; there was damage to twelve of our aircraft as the result of aggressive enemy aircraft action. B-29 gunners accounted for 33 enemy aircraft destroyed, 22 probably destroyed, and 40 damaged.

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By AD NARA Date 9/2/05

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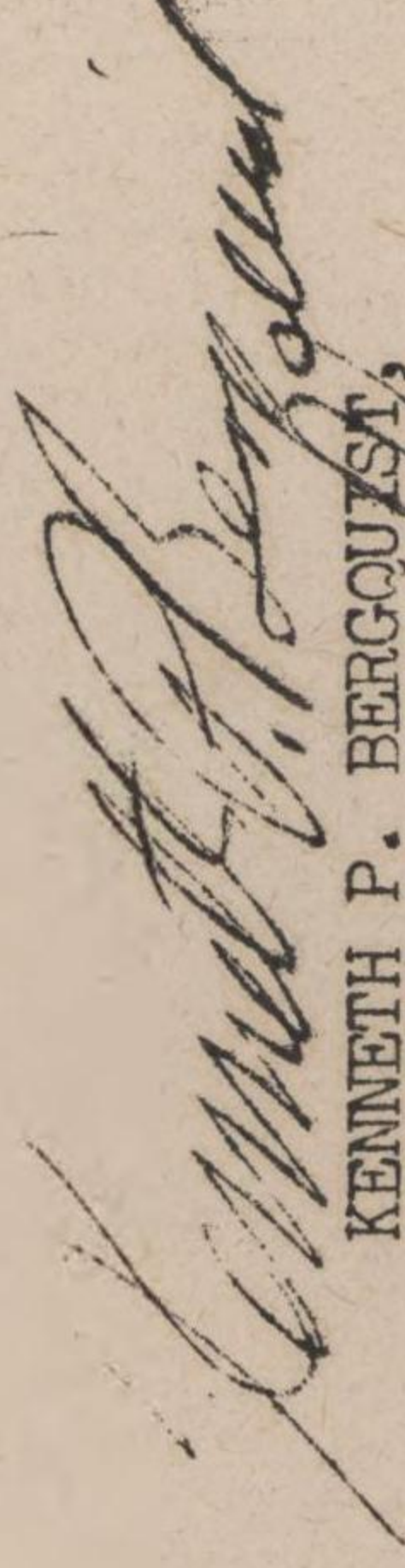
Tactical Narrative #21, Page 2.

Antiaircraft
Fire

Antiaircraft fire, most of it heavy, meager to moderate, and inaccurate to accurate, was encountered by several squadrons immediately on passing landfall, and by all of our aircraft from the IP, to and over the target, and for some distance from the target on the route out. Eight B-29's received damage from anti-aircraft fire, and many of them reported that fire was accurate enough to rock the aircraft.

Route Back

Our aircraft withdrew from the target area by right turn and continued on the route to base by individual flight. One aircraft, its No. 1 engine shot out and No. 2 engine damaged over the target, was so crippled that the formation with which it was flying throttled back and gave it cover from the enemy aircraft which followed it 60 miles out to sea. The crippled B-29 and one other aircraft which remained with it throughout the entire return flight were the last aircraft of their Group to land at Isely Field.



KENNETH P. BERGQUIST,
Colonel, Air Corps,
DC of S, Opns & Trng.

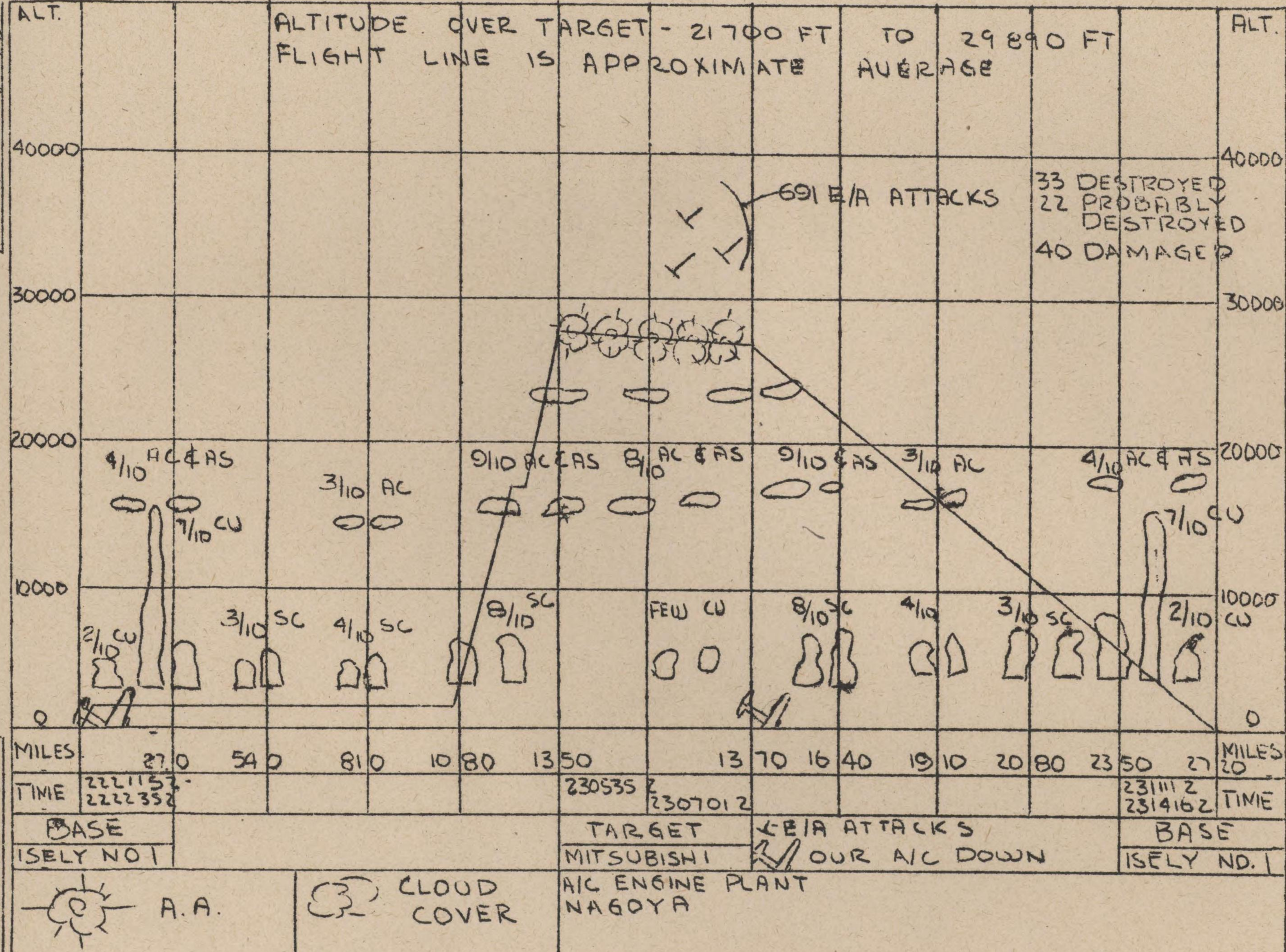
S E C R E T

Field Order Number
43
Mission Number
21
Date of Mission
23 January 1945

CONSOLIDATED MISSION REPORT

VERTICAL CHART

73rd Bomb Wing
DATE 7 February 1945
BY Capt. J.T. Davis



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S E C R E T

Headquarters
73rd Bombardment Wing

Mission No. 21
Field Order No. 43
23 January 1945.

CONSOLIDATED MISSION REPORT

BASIC DATA

1. TIME OF TAKE OFF:

| Gp No | Place | First A/C | Last A/C | No of A/C |
|---------|---------------------|-----------|----------|-----------|
| 497 | Isely Field, Saipan | 222213Z | 222235Z | 17* |
| 498 | Isely Field, Saipan | 222223Z | 222234Z | 22 |
| 499 | Isely Field, Saipan | 222115Z | 222124Z | 17 |
| 500 | Isely Field, Saipan | 222124Z | 222134Z | 17 |
| Overall | | 222115Z | 222235Z | 73 |

*Excludes 2 dumbo aircraft

2. TIME OF LANDING:

| Gp No | Place | First A/C | Last A/C |
|---------|---------------------|-----------|----------|
| 497 | Isely Field, Saipan | 231201Z | 231244Z |
| 498 | Isely Field, Saipan | 231156Z | 231416Z |
| 499 | Isely Field, Saipan | 231111Z | 231257Z |
| 500 | Isely Field, Saipan | 231135Z | 231252Z |
| Overall | | 231111Z | 231416Z |

3. SQUADRON ASSEMBLY:

Information not available. Sent to XXI Bomber Command.

4. GROUP ASSEMBLY:

None ordered.

5. WING ASSEMBLY:

None ordered.

6. AIRCRAFT RETURNING EARLY:**

| Gp No | A/C No** | Place | Time |
|-------|-----------|--------|---------|
| 497 | A47(3471) | Saipan | 222334Z |
| 497 | A51(5231) | Saipan | 222250Z |
| 499 | V11(3483) | Saipan | 222311Z |
| 499 | V21(3477) | Saipan | 230005Z |
| 500 | Z 6(4694) | Saipan | 230227Z |
| 500 | Z32(3497) | Saipan | 230910Z |
| 500 | Z49(4671) | Saipan | 222256Z |

*See Consolidated Statistical
Summary, Table II for
reasons for early return.
**All A/C returning early
jettisoned bombs.

7. ROUTE OUT:

Information not available. Sent to XXI Bomber Command.

8. ROUTE BACK:

Information not available. Sent to XXI Bomber Command.

S E C R E T

S E C R E T

Basic Data, Page 2

9. INITIAL POINTS:

Information not available. Sent to XXI Bomber Command.

10. TARGETS ATTACK DATA:

a. No A/C Attacking Targets:

| Gp No | Primary (Mitsubishi A/C Engine Plant) | Secondary (City of Nagoya) | Last Resort (Any Industrial City) | Opportunity |
|---------|---|-------------------------------|--------------------------------------|-------------|
| 497 | 0 | 11 | 0 | 0 |
| 498 | 0 | 16 | 0 | 5 |
| 499 | 15 | 0 | 0 | 0 |
| 500 | 13 | 0 | 0 | 0 |
| Overall | 28 | 27 | 0 | 5 |

b. Times over Targets

| Gp No | Primary | Secondary |
|-------|--------------------|--------------------|
| 497 | ----- | 230641Z to 230642Z |
| 498 | ----- | 230653Z to 230701Z |
| 499 | 230535Z to 230535Z | ----- |
| 500 | 230545Z to 230547Z | ----- |

Targets of Opportunity:

| Gp No | No of A/C | Target | Time | Altitude | Heading (Deg) |
|-------|-----------|----------|------------------|----------------|---------------|
| 498 | 3 | Shingu | 230632 - 230642Z | 21,700-27,000' | 155 - 350 |
| 498 | 1 | Okazaki | 230702Z | 26,235' | 87 |
| 498 | 1 | Tanigawa | 230650Z | 26,000' | Unknown |

c. Heading and Altitude from IP to Target:

Information not available. Sent to XXI Bomber Command.

d. Heading and Altitude over Targets*

| Gp No | Primary | | Secondary | |
|-------|---------------|--------------------|---------------|--------------------|
| | Heading (Deg) | Altitude | Heading (Deg) | Altitude |
| 497 | --- | --- | 85 to 98 | 24,700' to 25,500' |
| 498 | --- | --- | 81 to 109 | 26,000' to 29,890' |
| 499 | 130 | 26,000' to 27,200' | --- | --- |
| 500 | 69 to 94 | 25,300' to 26,800' | --- | --- |

*For information on A/C bombing targets of opportunity see section 10 b.

e. Breakaway:

Information not available. Sent to XXI Bomber Command.

f. Rally Point:

None ordered

g. Extra Runs over Target:

Information not available. Sent to XXI Bomber Command.

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Basic Data, Page 3
Par 10, cont'd

h. Reasons for failure to attack:

| Gp No | A/C No* | Reason |
|-------|-----------|---|
| 497 | A29(3427) | Over secondary target. Faulty electrical release system |
| 497 | A30(3858) | Over secondary target. Bomb bay door malfunction |
| 497 | A13(4717) | Over secondary target. Bombardier error |
| 498 | T22(4610) | Over secondary target. Rack malfunction |
| 500 | Z30(3487) | Over primary target. Rack malfunction |

*All A/C listed above jettisoned bombs.

11. ESCORT DATA:

No escort ordered.

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Headquarters
73rd Bombardment Wing

SECRET

Mission No. 21
Field Order No. 43
Date of Mission
23 January 1945

CONSOLIDATED MISSION REPORT

LOSS AND DAMAGE

12. CASUALTIES - PERSONNEL

See Consolidated Statistical Report
Table X, Casualties.

13. AIRCRAFT LOST

1. A/C A-6(4594), 497th Group -- ditched approximately 16 minutes after take-off about two miles off the coast of Saipan. Cause was failure of No. 3 and No. 4 engines. Five crew members were rescued and six are missing.

2. A/C Z-25(4785), 500th Group -- was disabled by AA fire or by E/A fire over the target. The No. 4 engine was observed to be burning, with flames extending far back in the slipstream. Several enemy fighters pounced on the A/C as it lost altitude and headed out to sea. One observer reported that at approximately 15,000 feet or lower the plane turned over on its back, went into a spin, and crashed into the sea about 45 miles east of Daio Saki light. No parachutes were observed.

14. AIRCRAFT MISSING

See section 13.

15. TOTAL AIRCRAFT FAILING TO RETURN

| | |
|-------------|-----|
| 497th Group | - 1 |
| 498th Group | - 0 |
| 499th Group | - 0 |
| 500th Group | - 1 |
| TOTAL | 2 |

16. DAMAGE TO AIRCRAFT

See Report of Battle Damage on following page.

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S-E-C-R-E-T

REPORT OF BATTLE DAMAGE

MISSION #21
23 Jan 1945

TO BE READY FOR
COMBAT WITHIN

DESCRIPTION OF DAMAGE

SERIAL NO.

497TH BOMB GROUP

| | | |
|----------|--------|---|
| 42-24597 | 2 days | Bullet hole in tail gunner's turret |
| 42-24717 | 2 days | Small hole in upper left side of fuselage near bomb bay. |
| 42-63485 | 2 days | Flak damage on #2 prop. |
| 42-24604 | 2 days | Fifty caliber hole in dorsal fin. |
| 42-63412 | 1 day | Shrapnel hole upper forward turret dome. |
| 42-63423 | 2 days | Radar dome damaged. |
| 42-63427 | 2 days | Radar dome damaged. |
| 42-24641 | 3 days | Eight holes in front bomb bay door. Bullet hole in #2 prop. |
| 42-24855 | 3 days | Eight holes in left front bomb bay door. |

Total Damaged - 497th Bomb Group: 9 Aircraft -- 1 within 1 day
6 within 2 days
2 within 3 days

498TH BOMB GROUP

| | | |
|----------|--------|---|
| 42-24727 | 3 days | One flak and one bullet hole in horizontal stabilizer. One 20 mm in radar room. Several small bullet holes in empennage. |
| 42-24608 | 3 days | Three bullet holes in bomb bay doors. One bullet hole in astro dome. |
| 42-24695 | 3 days | One bullet hole in empennage. |
| 42-24610 | 5 days | Six bullet holes in fuselage. |
| 42-24646 | 5 days | Three bullet holes in nacelle. Five bullet holes in bomb bay door. One bullet hole in fuselage. One bullet hole in dorsal fin. |
| 42-63478 | 5 days | Bullet hole in rudder. |

Total Damaged - 498th Bomb Group: 6 Aircraft -- 3 within 3 days
3 within 5 days

499TH BOMB GROUP

| | | |
|----------|--------|---|
| 42-63453 | 3 days | Left front bomb bay door shot up with bullet holes self inflicted. |
| 42-65244 | Indef. | Threw out all loose equipment, bombsight, flak suits, GFC sights: preparing to ditch. |

S-E-C-R-E-T

73rd Wing Stat

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Headquarters
73rd Bombardment Wing

S E C R E T

Mission No. 21
Field Order No. 43
Date of Mission
23 January 1945

CONSOLIDATED MISSION REPORT

AA AND AIR-TO-AIR BOMBING

17. ENEMY AA FIRE

Primary target: Mitsubishi A/C Engine Works, Nagoya. AA fire was encountered by some A/C from landfall to IP, by all A/C from IP to target area, and by some A/C from target area to the ocean. Altitudes of attack varied from 25,000 to 27,200 feet.

Eight A/C were damaged by AA fire. Average altitude of damaged A/C was 26,000 feet. The worst damage reported was a damaged engine nacelle. One of the damaged A/C was shot down at sea by fighters.

Sixty (60) A/C bombed the primary and secondary targets. AA fire was reported generally inaccurate, level, trailing, and more to right than left. No particular type of fire control was predominant. Continuously-pointed, predicted concentration, and barrage type fire all were reported as meager to moderate.

This was a daylight mission.

Comments: One A/C reported passing over a "flak ship" at 23,000 feet. The ship fired a few inaccurate bursts. This A/C was evidently alone at the time, since the ship was reported by only one crew. Naval AA fire on the whole is more accurate than AA fire. It would be good policy to avoid surface craft when possible.

Black, white and brown AA fire bursts were observed on this mission.

18. OUR TACTICS VS AA

Three Groups reported using slight turns except when on bombing run, and one of these Groups added a loss in altitude when leaving the target area. One Group reported no evasive action.

19. AIR-TO-AIR BOMBING

One air-to-air phosphorus bomb was released by a NICK flying 300 feet above and with the formation. The bomb caused no damage, exploding 100 feet below the formation. One ZEKE dropped a bomb which exploded 500 feet above the formation and caused no damage.

One possible rocket attack took place when a ZEKE fired six or seven shots which left the ZEKE in the form of bursts and exploded into white puffs. No damage was caused by this attack.

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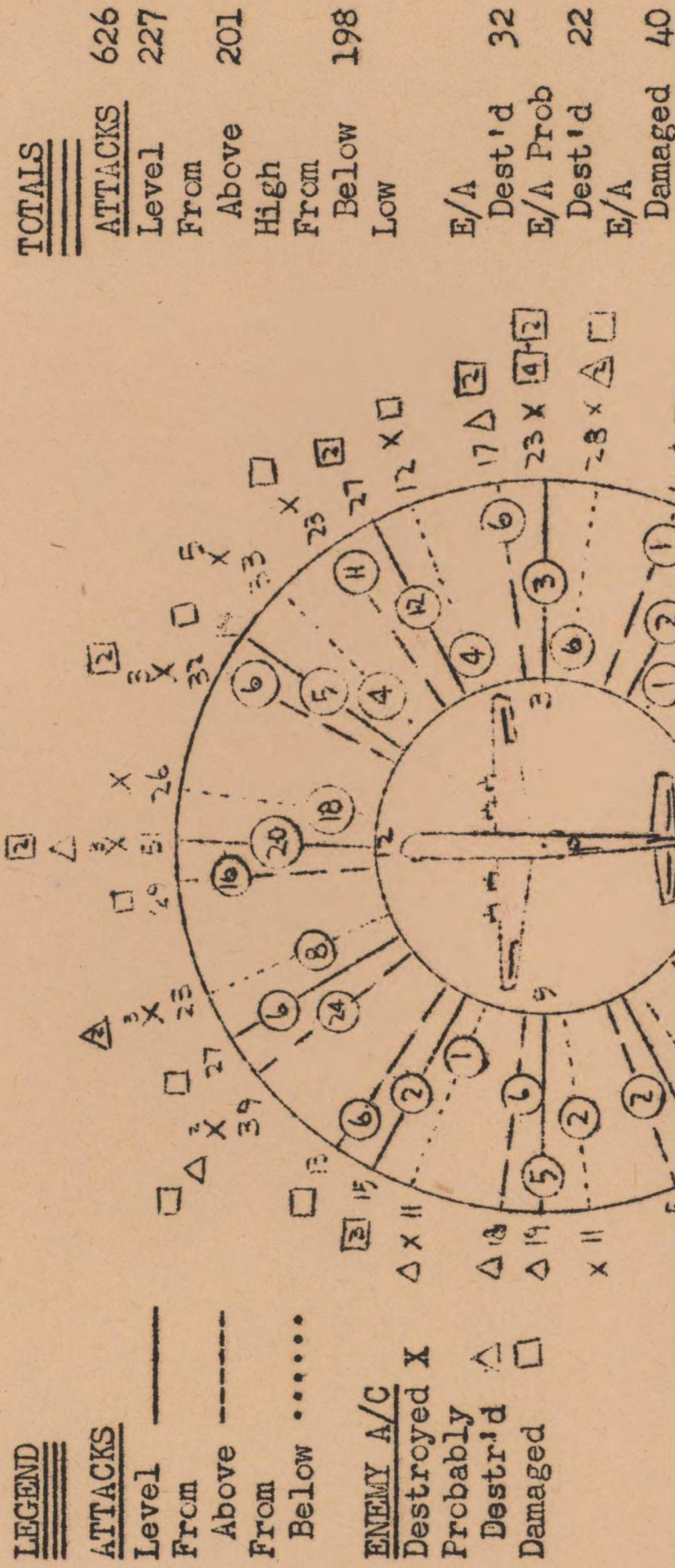
Headquarters
73rd Bombardment Wing

Field Order No. 43
Mission No. 21
23 January 1945

CONSOLIDATED MISSION REPORT

COMBAT DATA

20. ANALYSIS OF ATTACKS BY ENEMY AIRCRAFT:



Note: The number of E/A attacking is shown at the outside end of each line. Attacks made by twin-engine enemy aircraft are indicated by "o" interruption in attack line, and when more than one T/E attack is made, the total is shown inside the "o".

21. YARDS AT WHICH ENEMY AIRCRAFT OPENED FIRE:

| Yds | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 or more |
|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------------|
| No A/C Firing | | 6 | 20 | 52 | 71 | 134 | 72 | 75 | 43 | 153 = 626 |

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S E C R E T

Combat Data, page 2

21. (Contd)

COMMENTS:

The average distances at which enemy aircraft are estimated to have opened fire, correlated with directions and angles of attack, are shown below.

| | Above | Level | Below | (yds) |
|---------------|-------|-------|-------|-------|
| 10:30 to 1:30 | 650 | 800 | 750 | |
| 1:30 to 4:30 | 650 | 650 | 700 | |
| 4:30 to 7:30 | 725 | 525 | 650 | |
| 7:30 to 10:30 | 650 | 750 | 900 | |

22. TYPES OF ENEMY AIRCRAFT ATTACKING

It is estimated that approximately 175 enemy aircraft were encountered. There were 626 separate attacks. The number of enemy aircraft attacking according to type of aircraft attacking, location and altitude of attacks are given below.

| Location | Altitude | No. & Type of E/A Attacking |
|-------------------------|----------|-----------------------------|
| Between landfall and IP | 26,000' | 3 TONY, 2 TOJO, |
| IP to target | 24,000' | 6 NICK, 1 JACK, 1 TONY |
| | 26,000' | 4 ZEKE, 17 TONY, 3 ZEKE 32 |
| | " | 1 OSCAR, 10 TOJO, 21 NICK |
| | " | 27 IRVING, 2 Unident T/E |
| | 27,000' | 12 Unident S/E |
| | " | 10 TONY, 4 Unident T/E |
| | " | 10 Unident S/E, 3 TOJO |
| | " | 5 ZEKE, 2 JACK, 1 OSCAR |
| Over target | 26,000' | 61 TONY, 46 TOJO, 15 ZEKE |
| | " | 47 NICK, 8 IRVING, 4 OSCAR |
| | " | 1 MIKE, 1 ZEKE 32 |
| | " | 7 JACK, 1 Unident S/E |
| | 27,000' | 12 ZEKE, 4 NICK, 12 IRVING |
| | " | 3 Unident T/E, 8 TONY |
| | " | 1 ZEKE 32, 1 OSCAR, 12 TOJO |
| | " | 1 Unident S/E |
| Target to coast | 24,000' | 14 ZEKE, 45 TONY, 4 ZEKE 32 |
| | " | 2 OSCAR, 24 TOJO, 1 NICK |
| | " | 31 IRVING, 8 Unident T/E |
| | " | 6 Unident S/E |
| | 25,000' | 2 IRVING, 1 TONY, 1 TOJO |
| | " | 1 NICK, 1 JACK |
| | 26,000' | 7 NICK, 3 IRVING, 2 TONY, |
| | " | 1 OSCAR |
| | 27,000' | 43 TONY, 16 IRVING, 4 TOJO |
| | " | 2 NICK |
| Coast to 60 miles out | 24,000' | 1 ZEKE, 2 TONY, 7 IRVING |
| | " | 3 Unident T/E |
| | 25,000' | 2 TONY, 1 Unident S/E |
| | 26,000' | 1 TONY |

There were no enemy aircraft types observed different from those which attacked.

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S E C R E T

Combat Data, page 3

23. TYPE AND ACCURACY ENEMY FIRE AND TYPE PROJECTILE

a. Enemy gunfire was reported to have been limited to 7.7-mm, 12.7-mm machine gun, and 20-mm cannon. Estimates of accuracy of fire varied from poor to accurate. However, one combat Group, the subject of 40% of the total attack, commented that enemy fire was "much more accurate" than on previous missions.

b. The following armament arrangements on E/A were reported:

IRVING - possible flexible gun mounted behind canopy
Unident T/E - appeared to have a dorsal turret aft of the canopy
TONY (2) - fired 20-mm cannon
NICK - fired 20-mm cannon
TOJO - fired 20-mm cannon
Unident E/A - fired 20-mm cannon

c. The distances to which E/A are estimated to have pressed attacks, correlated with directions and angles of approach, are shown below.

| | <u>Above</u> | <u>Level</u> | <u>Below</u> | (yards) |
|---------------|--------------|--------------|--------------|---------|
| 10:30 to 1:30 | 275 | 400 | 225 | |
| 1:30 to 4:30 | 275 | 300 | 300 | |
| 4:30 to 7:30 | 375 | 400 | 400 | |
| 7:30 to 10:30 | 325 | 375 | 500 | |

24. ENEMY AIRCRAFT MARKINGS

The following colors and markings were observed on enemy aircraft.

| | |
|-------------|--|
| TONY (10) | - orange, blue, and green patches all over wings and fuselage; red roundels fringed with jagged white ring |
| TONY (10) | - all black |
| TONY (5) | - all brown |
| TONY (4) | - green with red roundels |
| TONY (4) | - all silver |
| TONY (3) | - orange and yellow |
| TONY (3) | - all black |
| TONY (2) | - dark grey |
| TONY (2) | - grey with red roundels |
| TONY (2) | - olive drab |
| TONY (2) | - silver fuselage; black wings, red roundels |
| TONY (2) | - dark green |
| TONY (2) | - brown with red spots over fuselage |
| TONY (2) | - black with red stripe around cowlings |
| TONY (1) | - tan color and yellow nose |
| TONY (1) | - dark green and orange |
| IRVING (17) | - all black |
| IRVING (10) | - all brown |
| IRVING (4) | - dull green with red roundels |
| IRVING (4) | - all silver |
| IRVING (3) | - brown |
| IRVING (1) | - gray |
| IRVING (1) | - yellow fuselage and black cowlings |
| IRVING (1) | - yellow with maroon and silver wings |
| IRVING (1) | - dark green |

S E C R E T

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S E C R E T

| | |
|-------------|--|
| ZEKE (7) | - olive drab with red roundels |
| ZEKE (5) | - all yellow |
| ZEKE (2) | - all silver |
| ZEKE (2) | - all black |
| ZEKE (2) | - all brown |
| ZEKE (2) | - olive drab |
| TOJO (5) | - all green |
| TOJO (3) | - all brown |
| TOJO (1) | - brown with red roundels |
| TOJO (1) | - gray and tan with red roundels |
| TOJO (1) | - camouflaged |
| TOJO (1) | - all black |
| TOJO (1) | - dark; red checkerboard on underside of wings |
| OSCAR (1) | - all black |
| OSCAR (1) | - olive drab with red roundels |
| OSCAR (1) | - all gray |
| OSCAR (1) | - silver |
| JACK (1) | - all silver with red roundels |
| JACK (1) | - brown underside; dark green top |
| ZEKE 32 (2) | - all black |
| ZEKE 32 (1) | - brown |
| ZEKE 32 (1) | - silver |
| MIKE (1) | - black with Iron Cross |

25. ENEMY TACTICS

Take off procedure on this mission sent two groups off starting at 222115Z, and another two groups at 222213Z.

One of the groups which took off first experienced five attacks between landfall and the IP. No attacks were experienced by the two groups off last, before they reached the IP. However, the latter groups experienced more fighter attacks than those which were first off. The two groups which were off first reported a total of 205 attacks; the two groups off last reported a total of 421. The latter groups had a total of 17 attacks after leaving the Japanese coast on the return trip, the first groups had none.

The last two groups off reported a preponderance of T/E aircraft attacks. This was not indicated by the groups taking off first. The number of attacks over the target was almost identical for the groups taking off first and the ones taking off last. The latter had more attacks both from IP to target, and from target to coast on the way out, especially from target to coast, where they experienced 176 attacks, as against 43 sustained by the groups taking off first.

One unidentified E/A was observed flying at an altitude of 30,000 feet before landfall was made. One unidentified S/E A/C followed one squadron from landfall to the IP, as if reporting route, altitude, and speed of the formation. Three IRVINGS followed the formation 60 miles out to sea at formation altitude; considerably farther than usual. Otherwise no unusual or significant observations were made.

S E C R E T

S E C R E T

There did not appear to be a general overall plan of attack by enemy fighters on this mission, although attacks did show a greater amount of skill and determination than on previous missions. Tactical improvement was shown particularly as regards maneuverability of aircraft and accuracy of fire at altitude (26,500 feet). Enemy aircraft were reported as waiting for our formation at or near the target area.

Enemy opposition started at landfall and continued throughout the bomb run, over the target area, and until our aircraft were 30 miles out to sea on the return trip. Attacks reached their maximum intensity on the bomb run, over the target area, and immediately afterward.

A greater number of coordinated attacks were reported than on any previous mission. Four coordinated attacks in line-astern were reported as follows, over target area at 25,000 feet:

Two TONYs came in at 9 o'clock level, opened fire at 600 yards, and pressed attack to 300 yards, breaking away at 7 o'clock low.

Three TONYs came in at 8 o'clock low, opened fire at 1000 yards, broke away at 800 yards, where two of them reformed and attacked again at 9 o'clock level.

Two NICKs came in at 11 o'clock high, opened fire at 800 yards, pressed attack to 300 yards, then turned belly up and broke away at 2 o'clock low.

Four ZEKEs came in at 9 o'clock high, opened fire at 1000 yards, pressed attack to 600 yards, and broke away at 7 o'clock low.

An attack was made over target area at 26,500 feet by one 7-A/C formation consisting of three line-abreast with four tailing the leader 200 feet apart in trail. The attack was executed from 12 o'clock high. At about 1000 yards, the two wingmen turned off right and left respectively to draw fire while the leader with four in trail pressed to 50 yards, breaking away by diving slightly to pass under formation. Three Jan fighters were lost in this attack.

Another coordinated attack was made in the target area at 26,500 feet by three TONYs. One came in at 10 o'clock level, pressed to 1000 yards and was followed by the other two which came in at 1 o'clock low, about 3 seconds apart.

Two TONYs attacked over the target at 26,000 feet from 2 o'clock above, opened fire at 400 yards, pressed to 100 yards, and dove through the center of the formation.

A similar attack was made by two other TONYs from 4 o'clock above.

The following five attacks were made over Nagoya at 26,000':

Two NICKs attacked from 11 o'clock above, opened fire at 1000 yards, pressed to 200 yards in a pursuit curve, breaking away low and strafing the aircraft behind.

S E C R E T

S E C R E T

Five NICKS attacked simultaneously, three at 11 o'clock and two at 2 o'clock, followed by a coordinated attack of one NICK at 11 o'clock and four at 2 o'clock. Enemy aircraft opened fire at 1000 yards but did not press attacks closely. A similar attack was made by four other NICKS -- two from 11 o'clock high and two from 1 o'clock high. They broke away low without pressing attacks closely.

Four NICKS attacked from 12 o'clock below, opening fire at 800 yards and pressing to 300 yards. Breakaway was a peel-off and dive.

Four JACKS attacked in pairs, coming in at 4 o'clock level, opening fire at 1000 yards and breaking away at 600 yards under tail of our aircraft.

Two ZEKEs attacked from 12 o'clock level, opening fire at 600 yards and pressing attack to 200 yards.

Two TONYS attacked just before landfall at 23,000 feet, coming in from 3 o'clock low, opening fire at 700 yards. One pressed attack to 350 yards where it was stopped by our gunfire (destroyed). The other pressed to 200 yards where it was stopped by our gunfire (probably destroyed).

An attack was made by two IRVINGS, one ZEKE, and one TOJO at 26,500 feet. They came in at 12 o'clock high and low, and flew through the formation.

Three IRVINGS attacked at 23,000 feet, all at 1 o'clock, one high, one level, and one low. Attack pressed to 300 yards; one broke away low and to the right, the other two flew straight through the formation.

Ten IRVINGS attacked between 24,000 and 26,000 feet, coordinating their attacks in pairs. Three pairs came in at 3 o'clock low, pressed attacks to 200 yards, breaking away at 6 o'clock low and to the left. The other two pairs attacked at 5 o'clock low, pressed to 300 yards, and broke away to the right at 2 o'clock low.

Twenty TONYS attacked as a group, half way between the target and coast on the return trip, at an altitude of 25,000 feet. Ten came in from 3 o'clock low, pressed to 200 yards, turned left and broke away at 6 o'clock. The other ten came in at 5 o'clock low, pressed to within 300 yards, broke away to the right and down at 2 o'clock low. These were pursuit curve attacks, and a number of them were preceded or initiated by snap-rolls.

Two IRVINGS attacked at 25,000 feet at the IP, both coming in level, one at 11 o'clock and one at 1 o'clock, both flying straight through the formation.

A coordinated attack by two IRVINGS and one OSCAR was experienced at 25,000 feet over the IP. Enemy aircraft came up from behind clouds and attacked in line-abreast. Attack was pressed to within 300 yards; one IRVING broke away left at 5 o'clock high, the other right at 8 o'clock low, while the OSCAR broke away at 8 o'clock level.

S E C R E T

S E C R E T

Combat Data, page 7

25. Contd

Three TONYS attacked between IP and target at 25,000 feet, all coming in at 12 o'clock level and pressing to within 150 yards. Two broke away to the right at 9 o'clock level, and the third to the left at 3 o'clock low.

Five T/E unidentified aircraft attacked between IP and target at 25,000 feet, all from 11 o'clock above, pressing to within 200 yards, then diving under formation and attacking succeeding element.

Two TOJOs attacked on the bomb run at 26,000 feet; one from 7 o'clock level and one from 9 o'clock level, pressing to 600 yards, where one broke away in a dive to the right, the other in a dive to the left.

Just past the target area an attack was made by 12 TOJOs, attacking in pairs at approximately 24,000 feet. One from each pair attacked at 3 o'clock level, the other at 5 o'clock level. Attacks were pressed to 200 yards, and breakaways were at 6 o'clock level.

Three TONYS attacked on the bomb run at 26,500 feet, coming in line-astern from 9 o'clock high, pressing attacks to 75 yards, and breaking away to the right at 5 o'clock low.

There was a total of 26 coordinated attacks reported. A large percent of the attacks came from above, and several instances of vertical diving attacks were reported. The dive-through attack was used more than any other. A number of enemy aircraft used clouds, heavy haze, and the sun to advantage in making attacks.

Nose cone attacks were predominant. There were some side cone and tail cone attacks. Side cone attacks were usually strafing attacks and not closely pressed. Stragglers or aircraft in distress had the usual experience of numerous and intense fighter attacks. One aircraft in distress experienced approximately 70 enemy attacks before other B-29's closed in to protect it.

Breakaways of attacks by single enemy aircraft were generally the customary dives, banks, or Split-S.

26. ENEMY FORMATIONS

There were no enemy formations reported other than those described in paragraph 25.

27. OUR TACTICS AND FIREPOWER VS ENEMY AIRCRAFT

As on previous missions, our gunners generally opened fire at extreme ranges to discourage enemy aircraft from initiating or completing an attack. In many instances, however, the large number of attacks together with their rapid execution made it almost impossible to track properly and maintain the usual 1200 to 1500 yards of opening range. Consequently, two of our Groups, the recipients of 61% of the total attacks on this mission, opened fire at approximately 700 yards. Some crews of these Groups commented that enemy fighters suddenly appeared, firing even before our gunners saw them. There were no evasive maneuvers reported by our aircraft.

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S E C R E T

Combat Data, page 8

28A. CLAIMS

Following are claims resulting from hits on enemy aircraft, according to gun position and type of claim.

| <u>No. & Type E/A</u> | <u>Gun Position</u> | <u>Claim</u> |
|---------------------------|---------------------|--------------|
| 2 TOJO | Bomb | Destroyed |
| 2 ZEKE | Bomb | " |
| 2 TONY | Bomb | " |
| 1 Unident T/E | Bomb | " |
| 1 IRVING | Bomb | " |
| 2 NICK | Bomb | " |
| 1 ZEKE | RG | " |
| 4 TONY | RG | " |
| 1 TOJO | RG | " |
| 1 ZEKE 32 | RG | " |
| 1 ZEKE | RG, TG | " |
| 2 NICK | LG | " |
| 2 IRVING | LG | " |
| 3 TONY | TG | " |
| 4 IRVING | TG | " |
| 1 ZEKE | TG | " |
| 1 ZEKE | RSG | " |
| 1 ZEKE 32 | RSG | " |
| 1 TOJO | RSG | Probable |
| 1 NICK | Bomb | " |
| 1 IRVING | Bomb | " |
| 1 Unident T/E | Bomb | " |
| 1 TONY | Bomb | " |
| 1 JACK | Bomb, TG | " |
| 1 TONY | RG | " |
| 2 IRVING | RG | " |
| 1 IRVING | RG, TG | " |
| 1 OSCAR | LG | " |
| 1 Unident T/E | LG | " |
| 1 IRVING | LG | " |
| 1 ZEKE | TG | " |
| 1 TONY | TG | " |
| 1 NICK | TG | " |
| 1 ZEKE | RSG | " |
| 1 TONY | RSG | " |
| 2 NICK | RSG | " |
| 1 TONY | RSG | " |
| 2 TONY | Bomb | Damaged |
| 3 NICK | Bomb | " |
| 1 IRVING | Bomb | " |
| 1 OSCAR | RG | " |
| 1 NICK | RG | " |
| 1 MIKE | RG | " |
| 4 TOJO | RG | " |
| 1 Unident T/E | RG | " |
| 3 TONY | RG | " |
| 1 TONY | RG, RSG | " |
| 2 Unident T/E | LG | " |
| 1 OSCAR | LG | " |
| 1 ZEKE | TG | " |
| 4 TOJO | TG | " |
| 3 TONY | TG | " |
| 2 Unident T/E | TG | " |
| 1 JACK | TG | " |
| 3 TONY | RSG | " |

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S E C R E T

Combat Data, page 9

28A. Contd

| | | |
|------------------------|------|---------|
| 2 IRVING | RSG | Damaged |
| 1 NICK | RSG | " |
| 1 T/E in-line, unident | RSG | " |
| 1 IRVING | Crew | " |

Total Destroyed 32

Total Probably Destroyed 22

Total Damaged 40

S E C R E T

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Headquarters
73rd Bombardment Wing

S E C R E T

Mission No. 21
Field Order No. 23
Date of Mission
23 January 1945

CONSOLIDATED MISSION REPORT
OBSERVATIONS AND CREW COMMENTS

29. EXPENDITURE OF AMMUNITION

See Consolidated Statistical Report,
Table VIII, Ammunition Consumption Data

30. OUR OBSERVED LOSSES BY E/A

See section 13.

31. OUR OBSERVED LOSSES BY AA

See section 13.

32. OBSERVATIONS

None.

33. COMMENTS ON MAPS, CHARTS, AND PHOTOS USED

None.

34. CREW SUGGESTIONS

None.

S E C R E T

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Headquarters
73rd Bombardment Wing

S E C R E T

Mission No. 21
Field Order No. 43
Date of Mission
23 January 1945

CONSOLIDATED MISSION REPORT

GENERAL TECHNICAL DATA

35. FUNCTIONING OF OXYGEN SYSTEM

Satisfactory

36. FUNCTIONING OF CLOTHING AND PERSONAL EQUIPMENT

Satisfactory

37. CAMERAS

See Report of Photographic Officer.

38. TECHNICAL FAILURES

See Engineering Report.

S E C R E T

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S E C R E T

Headquarters
73rd Bombardment Wing

Field Order No. 43
Mission No. 21
23 January 1945

CONSOLIDATED MISSION REPORT

BOMBING DATA

39. Refer to Consolidated Statistical Summary.
40. Refer to Consolidated Statistical Summary.
41. Conditions over Target: Cloud coverage at the target caused two groups to bomb by radar, one group was able to make some slight visual corrections, and one group was able to make a visual run. The wind was ~~about~~ 130 knots from 260°. Some AA fire was encountered on the bomb run. Fighters varied from light to heavy.
42. IP and AP: The Initial Point selected was satisfactory but the planned turn necessary to pass over the IP on the axis of attack was considered too great. The AP was not seen by three groups due to cloud coverage.
43. Refer to Table II, Consolidated Statistical Summary.
44. Results of Bombing Observed: No bombs were observed on the primary target. One group dropped several miles short of the target on a visual run. Two groups probably had one Squadron each hit the city of Nagoya and one Squadron hit over the city. One group probably hit Nagoya just short of the target on a radar run. Refer to Table V, Consolidated Statistical Summary.
45. Possible Sources of Error in Bombing: Failure to open bomb bay doors in sufficient time. Failure of one lead bombardier to check bombsight indices and ascertain that release had occurred and failure in deputy ship of navigator informing bombardier when to start rate motor. Error caused by one lead bombardier resulting in an early release of bombs.
46. Use of Radar and Efficiency: Refer to Radar employment and radar Equipment Performance Report.
47. Comments and Suggestions: Recommend that turn at the IP be planned not in excess of 30° with drifts ~~allowed for~~. Recommend that lead aircraft open bomb bay doors as soon as on axis of attack after IP and that other aircraft in the formation open doors on the deputy two minutes from the bomb release line as determined by a radar slant range (and visual reference when possible).

S E C R E T

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Headquarters
73rd Bombardment Wing

S E C R E T

Mission No. 21
Field Order No. 43
Date of Mission
23 January 1945

CONSOLIDATED MISSION REPORT

BOMB IMPACT DATA

Paragraphs 48 through 51

No. of A/C over target:

28 A/C bombed primary target. 27 A/C
bombed secondary target (Nagoya City).
5 A/C bombed targets of opportunity
(3 - Shingu, 1 - Okazaki, 1 - Tanigawa).

Bomb load:

7 x 500-lb GP; 5 x 500-lb M-76 IB.

Aiming point:

Center of the two main final-assembly
buildings in western area of the plant.
Center of the city was the aiming point
of secondary target.

Direction of attack:

Varied from 800 to 1300.

Photographic coverage and
quality:

Photographs of excellent quality from
only one Squadron cover the primary tar-
get. Due to cloud cover, photographs
of fair to poor quality from 4 Squadrons
cover northern and eastern sections of
Nagoya. Photographs of poor quality from
2 Squadrons cover the mountain area
east of Nagoya.

SUMMARY

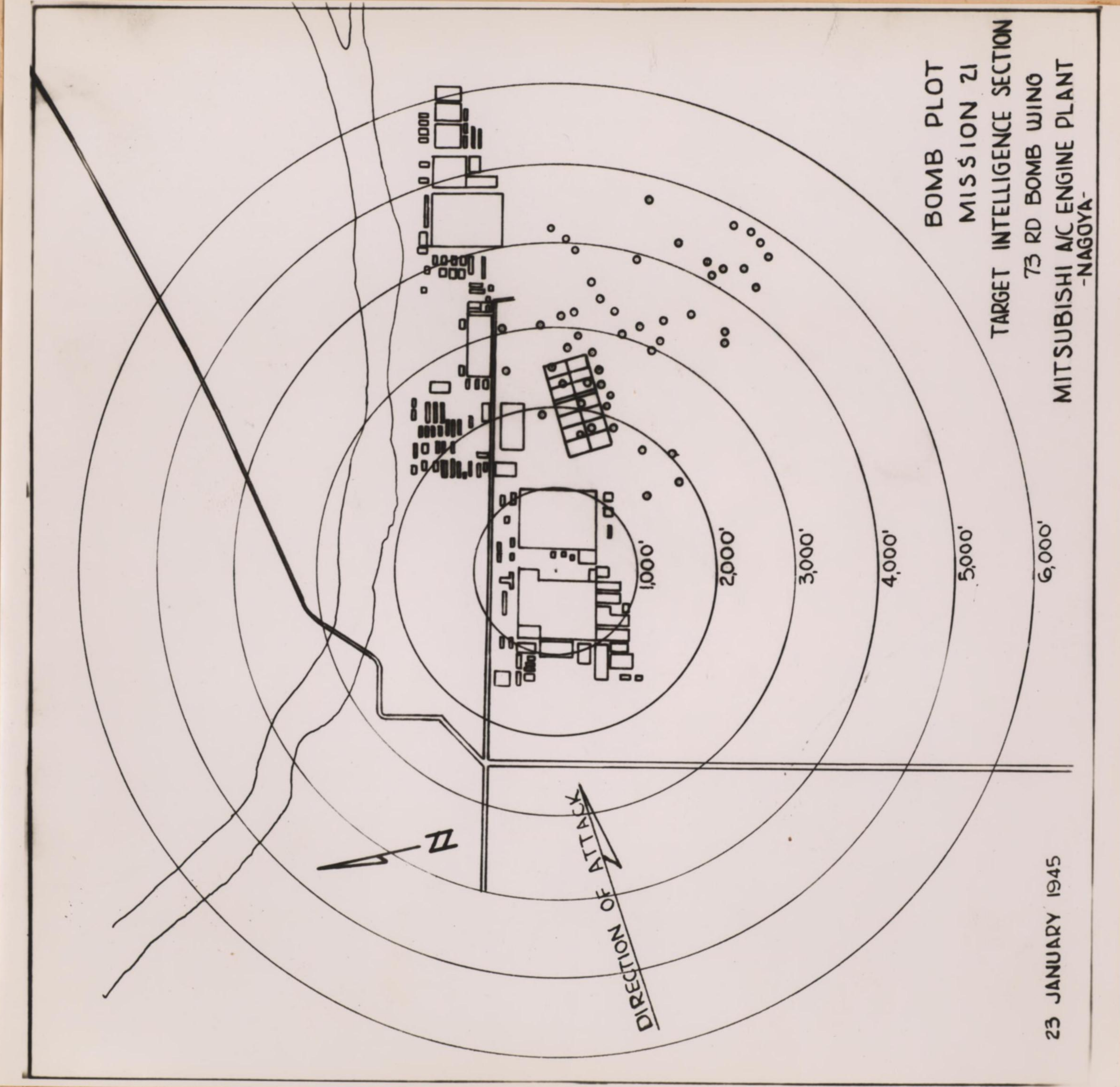
No hits were visible on the target, but the rebuilt sub-assembly
building received a near miss. A concentration of 50 hits within
5000' of the aiming point was visible S of the target in the vicinity
of the filtration ponds hitting a few small buildings. Fifty (50)
hits were visible 4 miles SE of the target at the eastern edge of the
city. Two concentrations of 50 hits each were seen in the mountain
area E of Nagoya city. Approximately 135 hits were observed 2 miles
N of Obatahara Airfield. These destroyed several houses in the
village of Koikeshomyoji. Fifteen (15) hits were seen in the vicin-
ity of the Nagoya RR Station.

CONCLUSION

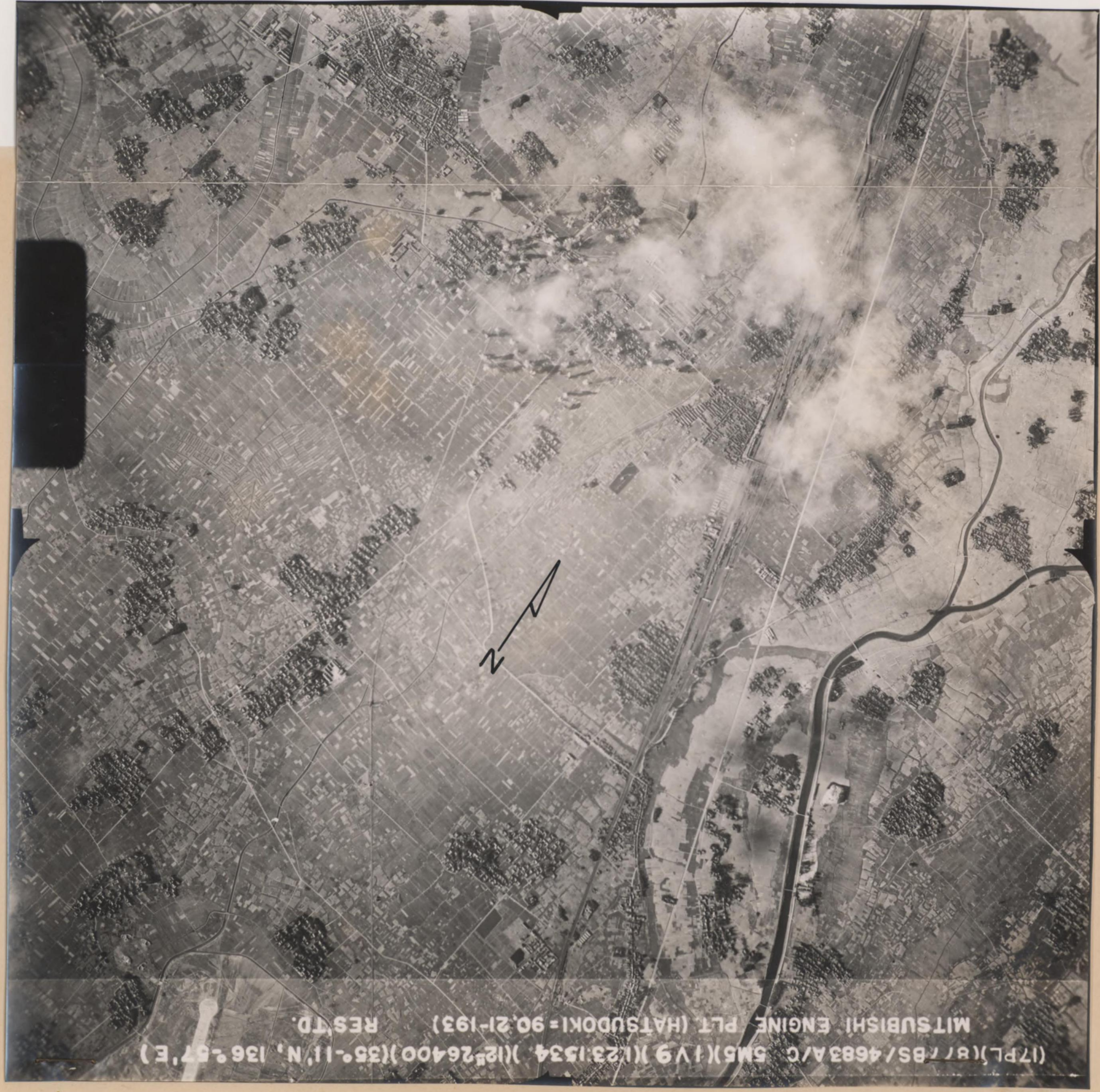
Since no bombs hit within 1000 feet of the aiming point on the
primary target, and only 15 bursts were seen in the city, bombing
results were considered unsatisfactory.

S E C R E T

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(17PL) (R/BS/4683A/C 5M5) (V 9) (123:1534) (12°26'40" N, 136°57' E.)
MITSUBISHI ENGINE PLT (HATSUDOKI=90.21-193) RES'D.

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Headquarters
73rd Bombardment Wing

SECRET

Field Order No. 43
Mission No. 21
23 January 1945

CONSOLIDATED MISSION REPORT

NAVIGATION

Consolidated Navigation Report submitted direct to VII Bomber Command
25 January 1945

SECRET

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Headquarters
73rd Bombardment Wing

S E C R E T

Field Order No. 43
Mission No. 21
23 January 1945

CONSOLIDATED MISSION REPORT

BOMBARDIER

See Par. 39 through 47.

S E C R E T

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DECLASSIFIED

Authority ND 760063
By spj NARA Date 9/21/05

SECRET

HEADQUARTERS 73RD BOMB WING
CONSOLIDATED MISSION REPORT

27 January 1945
B. F. H.
WEATHER SUMMARY

FO #43
Mission #21
23 Jan. 1945

Weather conditions at takeoff were calm and clear. The calm winds caused some difficulty in that dust raised during takeoff persisted over the runways seriously reducing visibilities.

Enroute to the target, a narrow band of frontal activity was encountered between 17°N and 19°N, farther south than forecast. Broken stratocumulus and altostratus conditions prevailed within the zone, with light shower activity and light turbulence pronounced at 18°N. Formations experienced no difficulty in penetrating this weather zone.

From 19°N to 29°N, route conditions were excellent. Much of the zone was entirely clear and in only occasional areas were 2-3/10's stratocumulus reported. The strong front forecast to affect the area from 23°N to 25°N was not encountered.

From 29°N to the target area, increasing cloudiness at several elevations was reported. Thin layers were penetrated during the climb at 17000 ft and at 26000. The reports of icing were submitted and only minor difficulties were encountered in holding formations together through the cloud layers. Cloudiness persisted over the Empire, failing to clear out as forecast.

Over the Empire at least two cloud layers, one at 26000 estimated 5/10 coverage and one at 14000 estimated 9/10 coverage, presented operational problems. The lower cloud layer obscured the surface in such fashion that all approaches to the IP and the first 2/3 of all bomb runs were made on radar. First squadrons over the target encountered brief breaks in the undercast directly over the city of Nagoya. Breaks were sufficient to allow bombardiers ten to fifteen seconds in which to apply some visual corrections. The target area was completely obscured by the time later squadrons reached the point of bomb release. The upper cloud layer at 26000 added further difficulties over the target. Squadrons bombing from this altitude were on and off instruments during the bomb run. The layer was reported as thin haze and seriously reduced vertical visibility at forward range.

Only notable difference in the return route was the southward displacement of the shower zone encountered at 18°N outgoing to 17°N on return.

The base on return was scattered to clear. No weather difficulties were encountered throughout the landing period.

On the whole, forecasted upper air data was accurate. Reported winds at altitude over the target averaged out to 260° - 120K, although navigators' radar wind checks over the target varied between 90 and 150K in velocity.

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FORECAST CROSS-SECTION - BASE - NAGOYA - 0700K-2100K 23 JANUARY 1945
FO #43

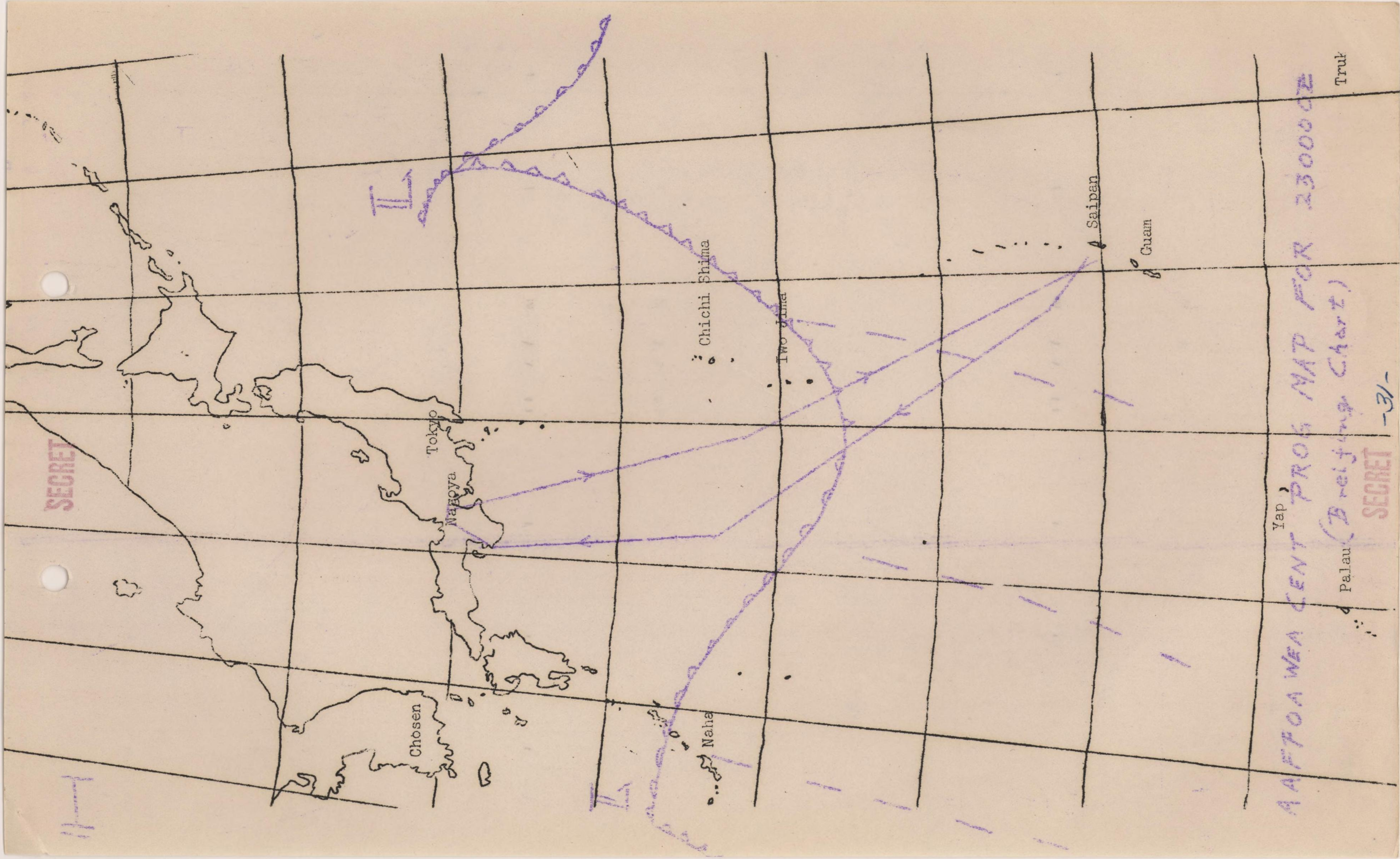
SECRET

Return Sim
BASE ON RE

| Altitude | Zone 1 (BASE) | Zone 2 (20°N) | Zone 3 (25°N) | Zone 4 (30°N) | Zone 5 (TARGET) | Zone 6 (DAS) |
|----------|-----------------|--------------------|--------------------|---------------|-----------------|--------------|
| 35 | 4/10c | 4/10c | 3/10c | 5/10c | 4/10c | 4/10c |
| 30 | 4/10c | 4/10c | 3/10c | 5/10c | 4/10c | 4/10c |
| 25 | | | | | 4/10c | 4/10c |
| 20 | | | | | 4/10c | 4/10c |
| 15 | cc | 4/10Ac | 4/10Ac | 3/10Ac | 4/10Ac | 4/10Ac |
| 10 | 4/10c | 4/10c | 4/10c | 6/10c | 4/10c | 4/10c |
| 05 | 4/10c | 4/10c | 4/10c | 6/10c | 4/10c | 4/10c |
| sfc | 4/10c | 4/10c | 4/10c | 6/10c | 4/10c | 4/10c |
| Zones | BASE | 20°N | 25°N | 30°N | TARGET | DAS |
| Altim | 29.77 | | | | 29.94 | 29.75 |
| Turb | None | Slight | Moderate | Light | None | Light |
| Vis | Base-16 | 15 mi (1 in shwd) | 20 mi (2 in rain) | 15 mi | 15 mi | 6-15 mi |
| 35 | 250 40 -45 | 250 70 -46 | 270 95 -48 | 260 120 -51 | 250 190 -57 | 260 145 -63 |
| 30 | 240 30 -32 | 250 60 -33 | 270 80 -35 | 260 105 -30 | 250 125 -40 | 260 130 -52 |
| 25 | 230 20 -24 | 250 50 -32 | 270 70 -23 | 260 90 -26 | 250 105 -32 | 260 110 -41 |
| 20 | 200 10 -10 | 250 45 -11 | 270 60 -13 | 270 90 -16 | 260 90 -21 | 260 90 -29 |
| 15 | 140 15 0 | 240 40 -1 | 290 50 -3 | 280 50 -7 | 260 60 -10 | 270 65 -19 |
| 10 | 100 15 10 | 230 30 9 | 270 40 10 | 280 35 4 | 270 40 -2 | 280 40 -11 |
| 05 | 120 14 90 15 17 | 190 20 16 30 25 14 | 350 20 9 310 25 6 | 310 25 6 | 310 30 -3 | |
| 02 | 110 12 90 16 22 | 130 15 21 70 15 19 | 40 12 16 340 15 11 | 330 18 2 | | |
| sfc | 100 10 90 14 26 | 90 14 25 90 10 24 | 60 8 21 360 10 16 | 340 14 6 | | |

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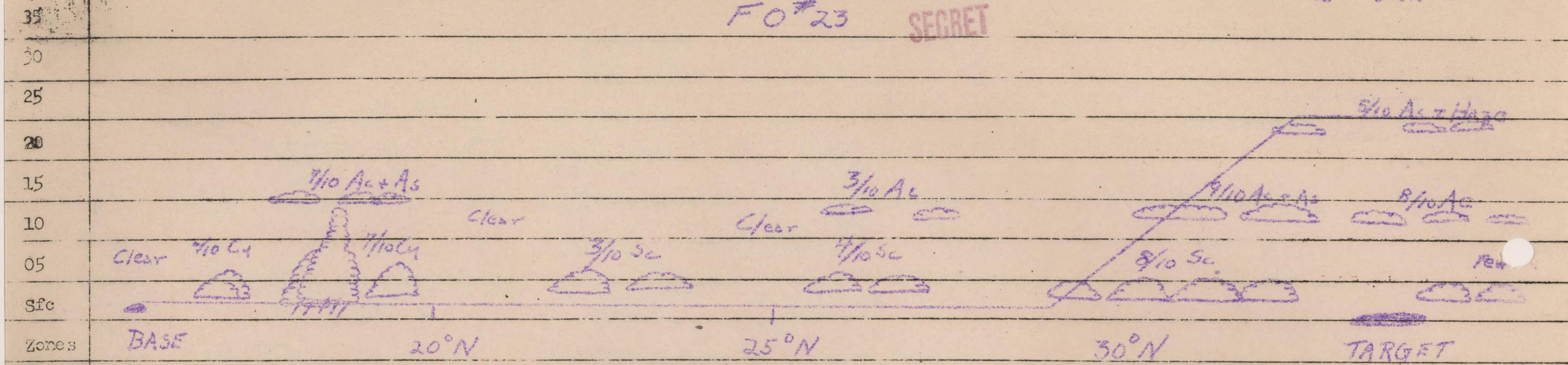
73bw Form 62



OBSERVED CROSS-SECTION BASE - NAGOYA

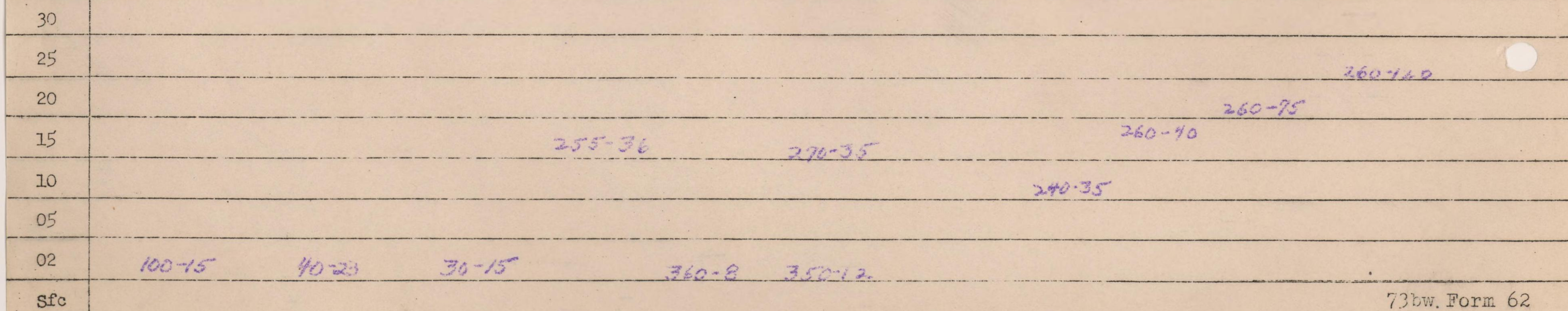
0700K - 2130K 23 JAN 45

FO#23 SECRET



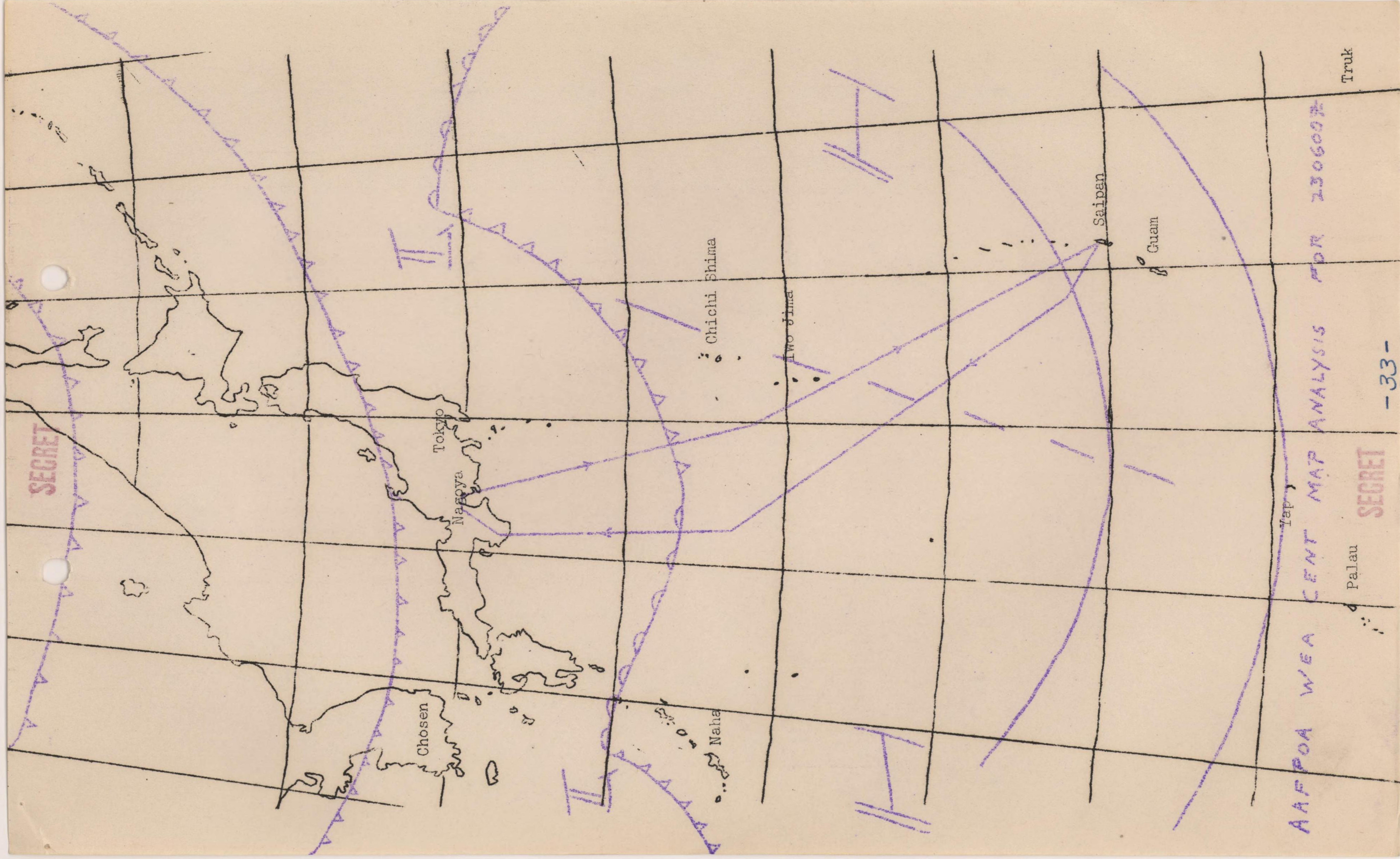
32
-
32
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OBSERVED WINDS



SECRET

73bw, Form 62



Headquarters
73rd Bombardment Wing

Field Order No. 43
Mission No. 21
31 January 1945

SECRET

CONSOLIDATED MISSION REPORT

CFC GUNNERY

1. Mission number 21 encountered heavy fighter opposition in the Nagoya area. E/A performance at lower altitude was of marked improvement and evidenced their ability to recover from an initial attack and press additional attacks.

2. Equipment operation was very satisfactory as indicated by the following:

| | |
|---|-------------|
| a. Cal. 50 ammunition (all types) expended----- | 167,825 rds |
| b. 20 mm ammunition (all types) expended----- | 115 rds |
| c. Used complete CFC system (no total failure), operative | 100% |
| d. Used individual turrets, operative----- | 98.8% |
| e. Used Cal. 50 machine guns, operative----- | 97.6% |

3. As CFC and weapon maintenance is improved by more careful pre-flight and general preventative maintenance, certain inherent failures such as link jams and faulty ammunition, become of greater importance. Care of ammunition is being greatly stressed by continuous inspection and relinking. To date units of this Wing have relinked approximately 1,750,000 rounds. However, stretched links and thick lipped cartridge cases are still with us. Continued care in handling and inspection is being stressed.

a. Jams of ejected links in feedway and link chute can not be corrected by any change known to date. It is also known that this is not a malfunction inherently a part of the CFC system, but rather one known in all flexible turret installations where the expended link must be chuted away. Three link jams were reported on this mission.

4. One group requested that the elevation stowing circuit be eliminated on the lower forward turret because it positioned turrets so that "cooked-off" rounds could cause self inflicted damage. This request was not favorably considered because it is believed that proper discipline of nose gunners will eliminate this danger. Nose gunners (Bombardiers) are instructed to hold the action switch closed for a long enough period 30 seconds or more, to adequately cool the weapons. In the past gunners have released action switches immediately upon ceasing fire.

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SECRET

Headquarters
75rd Bombardment Wing

Field Order No. 43
Mission No. 21
23 January 1945

CONSOLIDATED MISSION REPORT

FLIGHT ENGINEER

A. Summary of Malfunctions

| | <u>TOTAL</u> |
|---|--------------|
| 1. Power Plant | |
| a. Engine running rough and backfiring | 7 |
| b. Excessive cylinder head temperatures | 2 |
| c. Exhaust collector ring | 1 |
| 2. Oil system | |
| a. Oil leaks | 6 |
| b. Oil cooler regulator | 6 |
| c. Pressure (not within limits) | 3 |
| 3. Propellor | |
| a. Propellor governor | 3 |
| 4. Supercharger | |
| a. Surging at altitude | 2 |
| b. Torching | 1 |
| c. Amplifier | 1 |
| 5. Fuel System | |
| a. Pressure | 2 |
| b. Fuel transfer pump | 1 |
| 6. Electrical | |
| a. Voltage regulator | 6 |
| b. Inverter | 1 |
| 7. Instrument failure | |
| a. Fuel gage | 6 |
| b. Carbureter air temperature | 4 |
| c. Cylinder head temperature | 3 |
| d. Flight indicator | 2 |
| e. Tachometer | 2 |
| f. Rate of climb indicator | 1 |
| 8. Miscellaneous | |
| a. Oxygen system | 2 |
| (1) Leaks | 1 |
| (2) Regulator failure | 2 |
| b. Formation lights | 2 |
| c. Vacuum pumps | 1 |
| d. Emergency Hydraulic System | 1 |
| e. Cabin pressure leaks | 2 |
| f. Landing gear warning lights | 1 |

Recommendations:

1. Install an emergency means of operating the fuel transfer valves i.e. install a secondary cable control at the center wing section, or move the valves to a more accessible position
2. Install propeller control switch on flight engineers panel.

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Authority MND 760063
By ADJ NARA Date 9/21/05

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3. That a study be made of the oil frothing at altitude and the feathering standpipe be lengthened accordingly.
4. That a manual electrical control of the waste gates be installed for emergencies. This can be accomplished by placing a single pole, double throw switch across the transformer in the amplifier which provides the current for the waste gate variable phase through the 7c5 tubes, and grounds the center lead. Any malfunction in the bridge or amplifier can thereby be by passed, and operation especially over enemy territory can be accomplished.

B. Battle Damage
Refer to Par. 16 Consolidated Report.

C. Cruise Control Analysis

1. Average Fuel Aboard 7400 gals.
2. Average Bomb Load 6000 lbs
3. Ammunition load 6000 rds of 50 Cal.
4. Average gross weight at take off 133,000 lbs.
5. Average fuel used 6346 gallons (For information on fuel consumption by groups refer to table XI of the Consolidated Statistical summary).
6. Average time of flight 14 hours 19 min.
7. Average to the target.
 - a. Time 8 hours 27 min.
 - b. Fuel used 4237 gallons.
8. Time at altitude

| | <u>MAX</u> | <u>MIN</u> | <u>AVERAGE</u> |
|------------------------------|------------|------------|----------------|
| a. Cruise at 1000' | 6:40 | 5:25 | 6:08 |
| b. Climb to Bombing altitude | 1:15 | 1:08 | 1:12 |
| c. Cruise at " " | 1:15 | :25 | :51 |
9. Average for Return
 - a. Time 5 hours 52 min.
 - b. Fuel used 2118 gallons.
 - c. Airspeed 187 MPH.

D. Narrative Report

1. The 497th and 498th followed the predicted flight plan very closely and were at bombing altitude a minimum length of time. The 499th and 500th began climbing too soon and as a result arrived at altitude approximately 45 minutes sooner than briefed. By comparison of fuel used to the target it was found that these two groups used approximately 200 gals more per airplane.
2. An additional 1000 lbs of bombs were carried as compared to mission No. 20. This added weight did not show an increased fuel consumption on this particular mission. However, due to the difference in weather conditions it should not be concluded that an additional 1000 pounds of bombs can be carried without an additional expenditure of fuel.
3. With the marked increase in performance of the airplane since the weight was reduced by 5700 lbs, it is believed that the gross weight at take off should be limited to a maximum of 133,500 lbs. Any bomb load over 6000 lbs should be carried only by reducing the present fuel load an equivalent amount in weight.

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3. Breakdown of cameras not taking photos by cause:

| Cause | No. of Cameras | Explanation |
|---------------------------|----------------|----------------------------|
| a. Mechanical failure | 3 | Shutter Spring Stuck |
| b. Installation error | | |
| c. Processing error | 1 | Door not open |
| d. Camera doors not open | | |
| e. M/Switch not on | | |
| f. Vacuum failure | 7 | Overcast |
| g. Power failure | | |
| h. Light failure (Target) | 2 | Power out on ship |
| i. Enemy action | 10 | No exposures |
| j. Others | 6 | Not used |
| k. | | |
| l. | 3 | No film run thru camera |
| m. | | |
| n. | 1 | Magazine drive pin sheared |
| o. Total | 1 | Film logged |
| Total | 35 | |

4. Remarks and suggestions:

5. Instructions for preparing this form:

a. This report will be prepared by Photo Lab Commander and certified by Group S-3:

b. Items:

1a, b, c, d, are self explanatory.

1e - The number of malfunctions due to installation or processing.

1f - Number of non-effective cameras due to camera m/switch not turned on, failure of vacuum to the extent of rendering pictures void, Intervalometer or camera fuze blown, tampering with intervalometer or camera, light conditions over target, enemy action, etc.

1g. g is equal to a minus b, c, d, e, and f.

Item 2 - The f. stop, shutter speed, interval between exposures, altitude will be given for only the vertical cameras by A/C number.

Item 3 - Give a definite explanation of the reason for any malfunction.

Certified by _____
Group S-3
Rank _____

Prepared by Photo Lab Commander
GLENN F. HELLMAN
1st Lt., Air Corps,
Rank
Wing Photo Officer

CONFIDENTIAL

~~SECRET~~

Headquarters
73d Bombardment Wing

Field Order No. 43
Mission No. 21
23 January 1945

CONSOLIDATED MISSION REPORT

COMMUNICATIONS

1. Strike Reports: The Ground Station received eight (8) bombs away reports and seven (7) amplified strike reports from airplanes over the target. All reports were received by the Radio Station without difficulty.

2. Fox Transmissions: Time ticks and weather, encoded in Ucopac, were transmitted according to schedule, traffic permitting. Three dummy messages were sent out as "F" message as a check to see if Radio Operators are maintaining a continuous watch. The Ground Station retransmitted the first primary target bombs away report as a "Fox" message for information to all aircraft participating in the mission.

3. Frequencies: All bombs away reports and amplified strike reports were received on 11080 KC. Aircraft signals over the target were very good and were readable through interference. Ground Station signal on the top frequency, 11080 KC, was very good over the target. Moderate interference was received on 3145 KC during the entire mission, while 7275 KC and 11080 KC were reported to had heavy interference plus jamming during the mission. An English-speaking station on 7275 KC, bearing 294, caused heavy interference during final hours of mission. In a percentage breakdown of the traffic carried out on the strike frequencies, 62 per cent was worked on 11080 KC, 4 per cent on 7275 KC and 34 per cent on 3145 KC. It was suggested that the strike frequency 7275 KC be replaced because of the heavy CW and voice interference on frequency.

4. Navigational Aids: All aircraft made use of either Range or Homer. Several aircraft used the OWI Broadcasting Station as a homer and reported good results. Aircraft requested 33 D/F bearings from the Ground Station; 30 of these were obtained. Priority of an SOS over check and urgent bearings was the cause of AACCS D/F not obtaining the three bearings. In a breakdown of bearings, 10 were requested on 11080 KC and 23 were requested on 3145 KC. No bearings were requested on 7275 KC due to the heavy interference which prevented the D/F Station from shooting any bearings. Commander Base reported that 6 VHF bearings were requested and 6 were obtained.

5. Net Discipline and Security: No improvement was shown in maintaining net discipline by the aerial operators. The Radio Station logged three incidents of aircraft interfering with another aircraft's transmission. In one of these incidents one aircraft broke in on another ship's SOS and distress message. One aircraft violated AR 380-5 by repeating a code group in the same message.

DECLASSIFIED
E.O. 11652, Sec. 3(E) and 5(D) or (F)
A.M.D. 74C.D.0.
By Geo/33 NARS, Date Oct 11, 1978

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8-2-1
- 1 -
B-2-1-1

...testing a code group in the same message.

...and distress message. One aircraft violated AR 380-2
these incidents one aircraft probe in on another ship's
being with another aircraft's transmission. In one of
the radio operator's eyes, these incidents of aircraft inter-
shown in maintaining not discipline by the aerial operators.

2. Net Discipline and Security: No improvement was

0 were obtained.
for base reported that 0 VHF bearings were redressed and
prevented the D/E section from shooting any bearings. Con-
redressed on 2575 KC due to the heavy interference which
11080 KC and 23 were redressed on 3145 KC. No bearings were
bearings. In a breakdown of bearings, 10 were redressed on
bearings was the cause of VAGS D/E not obtaining the three
were obtained. Priority of an 805 over check and urgent
dressed 33 D/E bearings from the Ground Station; 30 of these
Station as a honor and reported the good results. Aircraft re-
range of honor. Several aircraft used the OWI Broadcasting

4. Navigation and Aids: All aircraft made use of either

of the heavy CW and voice interference on frequency.
Reported that the strike frequency 2575 KC be replaced because
per cent on 2575 KC and 34 per cent on 3145 KC. It was sug-
strike frequencies, 65 per cent was worked on 11080 KC. In
In a percentage breakdown of the traffic carried out on the
SdL caused heavy interference during final hours of mission.
the mission. An English-speaking station on 2575 KC, bearing
were reported to had heavy interference plus jamming during
3145 KC during the entire mission, while 2575 KC and 11080 KC
good over the target. Moderate interference was received on
Ground Station signal on the top frequency, 11080 KC, was very
target were very good and were readable through interference.
3. Intercomms: All bombs away reports and amplified strike
formation to all aircraft participating in the mission.

primarily target bombs away report as a "Fox" message for in-
tinuous water. The Ground Station retransmitted the first
as a check to see if Radio Operators are maintaining a con-
firming. These ground messages were sent out as 45 messages
in Decies, were transmitted according to schedule, traffic
3. For Transmissions: Time ticks and weather, encoded
the Radio Station without difficulty.

(8) bombs away reports and seven (7) amplified strike reports

1. Strike Reports: The Ground Station received eight

COMMUNICATIONS

CONSOLIDATED MISSION REPORT

339 Bombardment Wing
Headquarters

SECRET

23 January 1945
Mission No. 51
Field Order No. 43

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6. Enemy Transmissions: Aircraft radio operators report the following incidents of jamming and possible enemy interference: on 11080 KC from Iwo Jima to 100 miles from Japan, an unknown station was sending V's and dashes; steady tone signal on 3145 KC from 0845Z to 0947Z; steady buzzing sound on 3145 KC from 2200Z to 0000Z; Jap voice and CW on 4475 KC near the target. Ground Station operators report the following: Jap station sending CW messages consisting of three-letter groups on 7275 KC, bearing 345 degrees.

7. Distress: The Ground Station received 6 requests for urgent bearings; 5 of these were obtained. One bearing was not obtained because of priority of SOS over urgent bearing. One aircraft sent the distress for an aircraft shot down over the target. One aircraft sent an SOS and distress message, while the D/F station was obtaining his bearing. Position and bearing of ditching aircraft was obtained by the Ground Station. However, this aircraft did not ditch and was able to reach the base safely.

8. Equipment Malfunctions:

| SET | MAJFUNCTIONION | 497 | 498 | 499 | 500 |
|---------------|--|--------|-------------|-----|------------------|
| AN/ART-13 | No sidetone Inoperative Dials failed to lock | | 1 | 1 | 1 |
| AN/ARN-7 | Needle hunting Antenna lead-in broken Humming sound | 2 | 1 | 1 | 1 |
| BC-348 | Noisy Inoperative on fixed antenna Cutting out | 1 1 | | 1 | |
| SCR-274 | Antenna broken | 1 | | | |
| RC-36 | Intermittent Mike switches sticking VHF filtering through "Interphone" and "Liaison" at Radio Operator's position Dynamotor burned out Inoperative | | 1 2 1 | | 1 |
| Trailing wire | Inoperative Sticking or in- operative Wouldn't reel in Interfers with Loran Stuck | 2 | 7 | | 1 1 1 1 |





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Trelling wire Inoperative S V I
 Struck Interfere with torch I
 Woulin's reel in I
 Operative I
 Splicing or in- V

Inoperative I
 Dynamo tor burned out I
 Operator's position I
 "Liaison" at Radio I
 "Interphone" and I
 VHF filtering through I
 sticking I

BC-30 Intermitter S I
 Mike switches I

BCR-234 Antenna broken I I
 Cutting out I
 Fixed antenna I

BC-348 Noisy I I
 Inoperative on I
 Humming sound I
 broken I
 Antenna lead-in I

AN/ARN-1 Needle hunting S I
 Inoperative I
 Dials failed to lock I

AN/ART-13 No sidetone I I
 Inoperative I
 Malfunction I

8. Equipment Malfunctions:
 WAA VAG VAD VAD 200

not ditch and was able to reach the base safely.

retained by the Ground Station. However, this aircraft did
 bearing. Position and bearing of ditching aircraft was ob-
 distress message; while the D/T station was operating his
 shot down over the target. One aircraft sent an aircraft
 bearing. One aircraft sent the distress for an aircraft
 was not obtained because of priority of 208 over urgent
 for urgent bearings; 2 of these were obtained. One bearing
 V. Distress: The Ground Station received 6 requests

of three-letter groups on 3325 KC, bearing 345 degrees.
 the following: 7th station sending CW messages consisting
 3445 KC near the target. Ground Station operator's report
 sound on 3145 KC from 2300Z to 0000Z; 7th voice and CW on
 some signal on 3145 KC from 0845Z to 0945Z; steady pressing
 when an unknown station was sending V's and dashes; steady
 interference; on 11080 KC from two times to 100 miles from
 port the following incidents of jamming and possible enemy
 c. Enemy Intermissions: Aircraft radio operators re-

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Headquarters
73rd Bombardment Wing

SECRET

Field Order No. 43
Mission No. 21
24 February 1945

CONSOLIDATED MISSION REPORT

RADAR EMPLOYMENT AND RADAR EQUIPMENT PERFORMANCE

1. Employment

a. AN/AFQ-13 (Blind Bombing)

- (1) The radar equipment was used for target area navigation, radar approach to visual bombing and complete radar bombing.
- (2) Effective radar bombing of the secondary target was impeded by the requirement that the actual bomb run be diverted from the primary target to the secondary target when the visual bombing was obviously impossible. Difficulty was experienced in turning the formations to pass over the secondary target late in the bomb run under the downwind condition of high ground speed. Radar bombing impacts were scattered.

b. SCR-718 (Radar Altimeter)
Employment was normal

c. SCR-695 (IFF)
Employment was normal

2. Employment Performance

a. AN/AFQ-13

- (1) 71 A/C were radar equipped
- (2) 62 A/C reported radar satisfactory for bombing
- (3) 9 A/C reported unsatisfactory radar performance

b. SCR-718
Two (2) SCR-718 Altimeter failures were reported

c. SCR-695
Six (6) SCR-695 IFF failures were reported

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Headquarters
73rd Bombardment Wing

Field Order No. 43
Mission No. 21
23 January 1945

CONSOLIDATED MISSION REPORT

RCM REPORT

1. Number of Radar Observers participating 4
2. Number of Radar Observers completed mission 4
3. Equipment employed:

| <u>SETS</u> | <u>NO</u> | <u>AV HOURS ON</u> | <u>MAIFUNCTIONS</u> |
|-------------|-----------|--------------------|--------------------------|
| AN/APR4 | 4 | 17.1 | ----- |
| AN/APR5A | 0 | ----- | ----- |
| AN/APR5 | 4 | 16.3 | ----- |
| AN/APA6X | 4 | 14.0 | ----- |
| AN/ANQ-2 | 4 | 10.5 | ----- |
| | | | 1 PW out 1 PRF meter out |

4. Signals logged:

| <u>BAND</u> | <u>NUMBER</u> | <u>PRF RANGE</u> | <u>PULSE WIDTH RANGE</u> |
|--------------------------|---------------|------------------|--------------------------|
| A-60-85 | 39 | 820 | 31.4 u sec. |
| B-85-120 | 31 | 787 | 36.5 u sec. |
| C-120-170 | 16 | 538 | 14.0 u sec. |
| D-170-220 | 12 | 2500 | 6.5 u sec. |
| E-220-300 | 3 | ? | ? |
| F-300-1000 | 0 | --- | ----- |
| Above, specify Frequency | 27-60 | C.W. | C.W. |

5. Remarks.

a. Communication Channels:

- (1) Considerable interference and jamming is being experienced on the Command channel. In some instances, this is believed to be deliberate jamming. The following frequencies have been effected.

| <u>FREQ</u> | <u>TYPE OF INTERFERENCE</u> | <u>USE</u> | <u>AREA</u> | <u>REMARKS</u> |
|-------------|-----------------------------|----------------|--------------------|--|
| 11080 | Noise, CW and MCW | A/G CW | Target | Some doubt as to how much was deliberate |
| 7275 | Steady CW & Voice | A/G CW | Target | |
| 4475-4495 | Jap R/T | Rescue-Command | Target Jap channel | regular. |
| 3145 | Voice, MCW & CW | A/G CW | | |

- (2) Extensive interference or jamming has not been experienced on VHF channels. (A 129 mc; B, 134 mc; C, 140 mc; D, 127 mc.)

b. In two instances, observation planes were reported flying parallel to formations, presumably reporting data on speed, altitude and course. Despite conditions of limited visibility, fighter attacks occurred enroute to the I.P., on the bombing run and on the withdrawal. Although this axis has been used before, deployment of fighters suggest improved Ground-control

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S E C R E T

- c. (1) Reports of night fighters seen by radar on WSMs suggests they are vectored to attack. Plans are underway to include one search observer and equipment on one WSM per week. This should provide valuable data.
- (2) Reports on search-light tactics suggest they are controlled on a restricted basis. For example, on a recent Tokyo WSM, the search-lights around that city were not used until the attacking B-29 was overhead at which time, they were all turned on pointing nearly straight up. On another occasion it was reported search-lights were suddenly turned on and swung through an arc to the A/C. This last incident suggests use of search-light radar. Further data on this subject is necessary.
- d. A radar signal, 185 mc., high PRF, was intercepted in the vicinity of attacking Irving A/C. This signal is reported to have varied considerably in amplitude which the RCM Observer felt was influenced by the attitude and position (distance) of the Irvings.

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73RD BOMB WING

S-E-C-R-E-T

FIELD ORDER NO. 43

23 January 1945

MISSION NO. 21

Consolidated Statistical Summary

Primary Target - MITSUBISHI A/C ENGINE PLANT
Nagoya, Japan.

Table I Aircraft Participating

| | NUMBER OF AIRCRAFT | | | |
|--|--------------------|-----------|--------|--------|
| | TOTAL | G R O U P | | |
| WING | 497 | 498 | 499 | 500 |
| A/C Scheduled to Take-Off | 76 | 18 a | 22 | 17 |
| A/C Failing to Take-Off | 3 | 1 b | 0 | 0 |
| A/C Airborne | 73 | 17 a | 22 | 17 |
| A/C Bombing Primary Target | 28 | 0 | 0 | 15 |
| % of Airborne A/C Bombing Primary Target | 38% | 0 | 0 | 88% |
| A/C Bombing Secondary Target | 27 | 11 | 16 | 0 |
| A/C Bombing Last Resort Targets | 0 | 0 | 0 | 0 |
| A/C Bombing Targets of Opportunity | 5 | 0 | 5 | 0 |
| A/C Not Bombing | 13 | 6 | 1 | 2 |
| Time of Take-Off: | 22 Jan | 22 Jan | 22 Jan | 22 Jan |
| Earliest | 2115Z | 2213Z | 2223Z | 2115Z |
| Latest | 2235Z | 2235Z | 2234Z | 2134Z |
| Time of Return | 23 Jan | 23 Jan | 23 Jan | 23 Jan |
| Earliest | 1111Z | 1201Z | 1156Z | 1111Z |
| Latest | 1416Z | 1244Z | 1416Z | 1257Z |

a Excludes 2 Dumbo A/C.

b All (4741) Leak in oxygen system.

c 227 (4668) #2 engine failure.

251 (4671) #3 engine hard to pull through by hand; also runs hot.

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73RD BOMB WING

S-E-C-R-E-T

FIELD ORDER NO. 43

23 January 1945

MISSION NO. 21

Consolidated Statistical Summary

Table XI Breakdown of Aircraft Failing to Bomb Primary Target

| C A U S E | NUMBER OF AIRCRAFT | | | | |
|-----------------------------|--------------------|------|------|-----|-----|
| | Total Wing | 497 | 498 | 499 | 500 |
| Mechanical Materiel Failure | 14 | 5 a | 4 d | 2 h | 3 i |
| Personnel Error | 3 | 1 b | 1 e | | 1 j |
| Flight Conditions | 27 | 11 c | 16 f | | |
| Enemy Action | | | | | |
| Unknown | | | | | |
| Other | 1 | | 1 g | | |
| Total | 45 | 17 | 22 | 2 | 4 |

- a A 6 (4594) Ditched 4 miles off Saipan shortly after take-off. #3 & #4 engine failures.
 A29 (3427) Faulty electrical release system. Jettisoned.
 A30 (3858) Bomb Bay door relay switches failed to make contact. Jettisoned.
 A47 (3471) #4 engine #17 cylinder - blown rocker box & broken push rod. Jettisoned
 A51 (5231) Improper carburetor setting #4 engine. Jettisoned.
- b A13 (4717) Bombardier error.
- c Bombed Secondary Target, City of Nagoya, because cloud conditions prevented visual run on Primary Target.
- d T22 (4610) Rack malfunction - blown fuse. Jettisoned.
 T 4 (4611) #2 engine trouble, #1 collector ring burned out. Bombed Shingu (TO)
 T46 (3416) #2 Turbo burned out. Bombed Shingu (TO)
 T49 (4544) Excessive oil leak #1 engine. Bombed Tanigawa (TO)
- e T23 (4601) Bomb Doors not fully open. Bombed Okazaki (TO)
- f Bombed Secondary Target, City of Nagoya, because cloud conditions prevented usual run on Primary Target.
- g T 8 (4755) Followed T4 believing it to be proper formation maneuver. Bombed Shingu (TO)
- h V11 (3483) #2 engine fuel pressure rose to 22 lbs & remained there. 6 lb. air lock between transmitter & fuel pressure indicator. Jettisoned.
 V21 (3477) #3 prop governor stuck at 2200 RPM. Brush lead to computer on electric head of governor broken. Jettisoned.
 I Z 6 (4694) Forward fuel transfer pump was installed turned 180 degrees off thereby changing the direction of fuel flow. Jettisoned.
 Z32 (3497) #2 & #4 turbo regulator inoperative. Jettisoned.
 Z30 (3487) Bomb rack malfunction. Jettisoned.
- j Z49 (4671) Unjustified abort.

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S-E-C-R-E-T

73RD BOMB WING

Consolidated Statistical Summary

FIELD ORDER NO. 43

23 January 1945

Table III Bombing Run

MISSION NO. 21

| GROUP | T A R G E T | TYPE OF TARGET | NO. AIRCRAFT | | TIME OF RELEASE | | ALTITUDE OF RELEASE | | VISUAL BOMBING A/C SIGHTING FOR: | | | RADAR BOMBING | | A/C OPERATED BY: | | |
|-------|--------------------------------|----------------|-----------------|---------|-----------------|--------|---------------------|---------|----------------------------------|-------|----------------|---------------|------------------------|------------------|--------|---|
| | | | REACHING TARGET | BOMBING | EARLIEST | LATEST | LOWEST | HIGHEST | R & D | RANGE | DROP ON LEADER | A/C SIGHTING | A/C DROPPING ON LEADER | C - 1 | MANUAL | |
| 497 | NAGOYA | S | 14 | 11 | 0641Z | 0642Z | 24,700 | 25,500 | 1 | | 10 | | | 1 | 10 | |
| 498 | NAGOYA | S | 17 | 16 | 0653Z | 0701Z | 26,000 | 29,890 | | | | 2 | 14 | 2 | 14 | |
| | SHINGU | TO | 3 | 3 | 0632Z | 0642Z | 21,700 | 27,000 | | | | 1 | 2 | | | 3 |
| | OKAZAKI | TO | 1 | 1 | 0702Z | | 26,235 | | | | | 1 | | | | 1 |
| | TANIGAWA | TO | 1 | 1 | 0650Z | | 26,000 | | | | | 1 | | | | 1 |
| 499 | MITSUBISHI A/C Engine Plant | P | 15 | 15 | 0535Z | 0535Z | 26,000 | 27,200 | 1 | 1 | 13 | | | 1 | 14 | |
| 500 | MITSUBISHI A/C Engine Plant | P | 14 | 13 | 0545Z | 0547Z | 25,300 | 26,800 | 2 | 2 | 9 | | | 2 | 11 | |
| WING | MITSUBISHI A/C Engine Plant | P | 29 | 28 | 0535Z | 0547Z | 25,300 | 27,200 | 3 | 3 | 22 | | | 3 | 25 | |
| | NAGOYA | S | 31 | 27 | 0641Z | 0701Z | 24,700 | 29,890 | 1 | | 10 | 2 | 14 | 3 | 24 | |

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73RD BOMB WING

Consolidated Statistical Summary

FIELD ORDER NO. 43

23 January 1945

Table IV Loading & Disposal of Bombs

MISSION NO. 21

| GROUP | TYPE & WEIGHT OF BOMBS | FUSE SETTING | | L O A D E D | | | | R E L E A S E D O N T A R G E T | | | | | | | | JETTISONED | | UNKNOWN | | RETURNED | |
|-------|---------------------------|--------------|-----------|-----------------|-------|----------------------|--------|---------------------------------|-------|------------------|-------|-------------|------|-------------|------|------------|-------|---------|------|----------|------|
| | | NOSE | TAIL | ON ALL AIRCRAFT | | ON AIRBORNE AIRCRAFT | | PRIMARY MITSUBISHI A/C Eng. Pl. | | SECONDARY NAGOYA | | LAST RESORT | | OPPORTUNITY | | No. | Tons | No. | Tons | No. | Tons |
| | | | | No. | Tons | No. | Tons | No. | Tons | No. | Tons | No. | Tons | No. | Tons | | | | | | |
| 497 | 500 lb GP AN-M64 | .1 | .025 | 126 | 31.5 | 119 | 29.75 | | | 77 | 19.25 | | | | | 42 | 10.5 | | | | |
| | 500 lb IB AN-M76 | Inst. | non-delay | 90 | 22.5 | 85 | 21.25 | | | 55 | 13.75 | | | | | 30 | 7.5 | | | | |
| 498 | 500 lb GP AN-M64 | .1 | .025 | 154 | 38.5 | 154 | 38.5 | | | 112 | 28 | | | 35 | 8.75 | 7 | 1.75 | | | | |
| | 500 lb IB AN-M76 | Inst. | non-delay | 110 | 27.5 | 110 | 27.5 | | | 80 | 20 | | | 25 | 6.25 | 5 | 1.25 | | | | |
| 499 | 500 lb GP AN-M64 | .1 | .025 | 119 | 29.75 | 119 | 29.75 | 105 | 26.25 | | | | | | | 14 | 3.5 | | | | |
| | 500 lb IB AN-M76 | Inst. | non-delay | 85 | 21.25 | 85 | 21.25 | 75 | 18.75 | | | | | | | 10 | 2.5 | | | | |
| 500 | 500 lb GP AN-M64 | .1 | .025 | 133 | 33.25 | 119 | 29.75 | 91 | 22.75 | | | | | | | 28 | 7 | | | | |
| | 500 lb IB AN-M76 | Inst. | non-delay | 95 | 23.75 | 85 | 21.25 | 61 | 15.25 | | | | | | | 24 | 6 | | | | |
| WING | 500 lb GP AN-M64 | .1 | .025 | 532 | 133 | 511 | 127.75 | 196 | 49 | 189 | 47.25 | | | 35 | 8.75 | 91 | 22.75 | | | | |
| | 500 lb IB AN-M76 | Inst. | non-delay | 380 | 95 | 365 | 91.25 | 136 | 34 | 135 | 33.75 | | | 25 | 6.25 | 69 | 17.25 | | | | |
| | TOTAL | | | 912 | 228 | 876 | 219 | 332 | 83 | 324 | 81 | | | 60 | 15 | 160 | 40 | | | | |

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73RD BOMB WING

S-E-C-R-E-T

FIELD ORDER NO. 143

23 January 1945

MISSION NO. 21

Consolidated Statistical Summary

Table V Bombing Accuracy

Target: MITSUBISHI A/C ENGINE PLANT
Nagoya, Japan

| G R O U P | BOMBS RELEASED ON TARGET | | NUMBER OF HITS AND DISTANCE FROM FALLING POINT | | | | | | | | |
|-----------------------|-----------------------------------|---|--|---|------------|----|-------------|----|-------------|-----|-------|
| | | | 0 - 500' | | 500'-1000' | | 1000'-2000' | | 2000'-3000' | | TOTAL |
| | | | No. | % | No. | % | No. | % | No. | % | |
| 497 | 0 | - | - | - | - | - | - | - | - | - | - |
| 498 | 0 | - | - | - | - | - | - | - | - | - | - |
| 499 | 180 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| 500 | 152 | 0 | 0 | 0 | 6 | 4% | 10 | 7% | 16 | 11% | - |
| WING | 332 | 0 | 0 | 0 | 6 | 2% | 10 | 3% | 16 | 5% | - |

Table VI Number of Hits on Target

| GROUP | NO. OF HITS ON TARGET | % OF BOMBS RELEASED HITTING TARGET |
|-------|--------------------------|---|
| 497 | - | - |
| 498 | - | - |
| 499 | 0 | - |
| 500 | 0 | - |
| TOTAL | 0 | 0 |

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73RD BOMB WING

S-E-C-R-E-T

FIELD ORDER NO. 43

23 January 1945

MISSION NO. 21

Consolidated Statistical Summary

Table VII Combat Data

| GROUP | ENEMY AIRCRAFT ENCOUNTERED * | ATTACKS BY ENEMY AIRCRAFT | ENEMY AIRCRAFT | | |
|-------|---------------------------------|------------------------------|----------------|-----------------------|---------|
| | | | DESTROYED | PROBABLY DESTROYED | DAMAGED |
| 497 | 150 | 128 | 4 a | 3 b | 13 c |
| 498 | 93 | 77 | 6 d | 4 e | 1 f |
| 499 | 125 | 233 | 8 g | 7 h | 20 i |
| 500 | 320 | 253 | 15 j | 8 k | 6 l |
| Wing | 688 ** | 691 | 33 | 22 | 40 |

* Estimated.

** Total of Group Estimates.

a 1 Tojo, 2 Zekes, 1 Tony
b 1 Tony, 1 Oscar, 1 Zeke
c 1 Zeke, 4 Tojos, 1 Oscar, 1 Nick,
3 Tonys, 1 Mike, 2 Irvings
d 5 Tonys, 1 Zeke
e 1 Nick, 1 Jack, 1 Irving, 1 Zeke
f 1 Tony
g 4 Nicks, 1 Tojo, 1 T/E Unidentified,
2 Irvings
h 1 Tojo, 1 Irving, 3 Tonys, 2 T/E un-
identified
i 6 Tonys, 4 Nicks, 4 Tojos, 1 Jack,
5 T/E unidentified
j 6 Irvings, 3 Tonys, 3 Zekes, 1 Tojo,
2 Hamps
k 4 Irvings, 1 Tony, 3 Nicks
l 2 Irvings, 2 Tonys, 1 Oscar, 1 T/E
unidentified.

Table VIII Ammunition Consumption Data

| | AMMUNITION EXPENDED PER GROUP | | | | | TOTAL |
|-------------|-------------------------------|--------|--------|--------|--|---------|
| | 497 | 498 | 499 | 500 | | |
| 20 mm. | | | | | | |
| Fired | 115 | 0 | 0 | 0 | | 115 |
| On Lost A/C | 115 | 0 | 0 | 0 | | 115 |
| Total | 230 | 0 | 0 | 0 | | 230 |
| .50 Cal. | | | | | | |
| Fired | 35,020 | 43,745 | 42,585 | 46,475 | | 167,825 |
| On Lost A/C | 6,000 | 0 | 0 | 6,000 | | 12,000 |
| Total | 41,020 | 43,745 | 42,585 | 52,475 | | 179,825 |

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73RD BOMB WING

23 January, 1945

S-E-C-R-E-T

FIELD ORDER NO. 43MISSION NO. 21

Consolidated Statistical Summary

Table IX Aircraft Lost and Damaged

| C A U S E | AIRCRAFT LOST | | | | AIRCRAFT DAMAGED | | | | | |
|--------------------------------|---------------|-----|-----|-----|--------------------------------|------------|-----|-----|-----|-----|
| | TOTAL WING | 497 | 498 | 499 | 500 | TOTAL WING | 497 | 498 | 499 | 500 |
| ENEMY A/C | | | | | | 12 | 3 | 5 | | 4 |
| ENEMY FLAK | | | | | | 4 | 2 | 1 | 1 | |
| ENEMY A/C & FLAK | 1 | | | | 1 b | 4 | | | 1 | 3 |
| ACCIDENT | 1 | 1 a | | | | | | | | |
| OWN GUNS | | | | | | 9 | 2 | 1 | 3 | 3 |
| U N K N O W N | | | | | | | | | | |
| OTHER | | | | | | 3 | 2 c | | 1 d | |
| TOTAL | 2 | 1 | | | 1 | 32 | 9 | 7 | 6 | 10 |
| NO. A/C SUFFERING MAJOR DAMAGE | 6 | | | | NO. A/C SUFFERING MINOR DAMAGE | | | | 26 | |

a A6 (4594) Lost one engine on take off and another shortly thereafter (#3 & 4 Engines) and was forced to ditch 4 miles off Saipan.

b Z25 (4785) Crashed - thought to have been hit by flak & fighters over target #4 engine caught fire enveloping entire A/C. A/C forced to leave formation and was rapidly losing altitude. Enemy fighters continued to attack A/C as it descended.

c Damaged by shell casings.

d Stripped to lighten load.

Table X Casualties

| CASUALTIES | 497 | 498 | 499 | 500 | TOTAL |
|-------------------|-----|-----|-----|-----|-------|
| Killed | | | 1 | | 1 |
| Missing | | 6 | | 11 | 17 |
| Wounded & Injured | | 5 | | 5 | 10 |
| Total Casualties | 11 | | 1 | 16 | 28 |
| No. Participating | 188 | 243 | 190 | 189 | 810 |

S-E-C-R-E-T

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73RD BOMB WING
23 January, 1945

S-E-C-R-E-T

FIELD ORDER NO. 43
MISSION NO. 21

Consolidated Statistical Summary
Table XI Fuel Consumption Data

| | TOTAL WING | G R O U P | | | |
|--|---------------|-----------|---------|--------|---------|
| | | 497 a | 498 b | 499 c | 500 d |
| Average Fuel Aboard | 7399 | 7393 | 7400 | 7416 | 7386 |
| Average Flying Time | 14:27 | 14:06 | 14:34 | 14:20 | 14:44 |
| Average Distance - Nautical Air Miles | 2896 | 2815 | 2950 | 2923 | 2861 |
| Fuel Used: | | | | | |
| Average | 6346 | 6219 | 6292 | 6401 | 6533 |
| Maximum | 7220 | 6836 | 6900 | 6760 | 7220 |
| Minimum | 5744 | 5744 | 5927 | 6015 | 5987 |
| Fuel Remaining: | | | | | |
| Average | 1053 | 1174 | 1108 | 1033 | 853 |
| Maximum | 1716 | 1716 | 1473 | 1410 | 1413 |
| Minimum | 180 | 524 | 500 | 790 | 180 |
| Av. Gallons per Hour | 439 | 441 | 425 | 447 | 444 |
| Av. Gallons per Mile | 2.19 | 2.21 | 2.13 | 2.19 | 2.28 |
| Total Gasoline Consumed & Lost | 434,731 | 95,516 | 138,420 | 98,764 | 102,031 |

- a Based on 14 A/C
- b Based on 22 A/C
- c Based on 13 A/C
- d Based on 12 A/C

APPROXIMATE GROSS WEIGHT AT TAKE-OFF: 133,000 pounds.

TIMES AT VARIOUS ALTITUDES

| | | | | | | |
|-----|---------|-------|----------|------|-----------|------|
| 497 | 1000 ft | 6:40, | 18000 ft | :05, | 22500 ft. | :25 |
| 498 | 1000 ft | 6:35, | 26500 ft | :30 | | |
| 499 | 1000 ft | 5:20, | 18000 ft | :25, | 26000 ft | 1:15 |
| 500 | 1000 ft | 5:50, | 26000 ft | 1:14 | | |

S-E-C-R-E-T

S E C R E T

COBOMCP 497
COBOMCP 498
COBOMCP 499
COBOMCP 500

INFO BOM 21 ATIN CONTROLLER

CONTROL _____

HQ 73D BOMB WG
SAIPAN
211230Z JAN 45

FO 43

MAPS: LONG RANGE NAVIGATIONAL CHARTS JAPAN AND CAROLINE ISLANDS 1:3000,000.

1. A. (1) HV MOD TO INTENSE AAA IN TARGET AREA AND OSAKA.
- (2) 300 ENEMY FIGHTERS REPORTED IN TARGET AREA.
- B. (1) LIFE GUARD SUBS AND DESTROYERS TO FOLLOW.
- (2) DUMBO TO FOLLOW.

2. 73D WG ATKS JAPAN.

PRIMARY TARGET: 90.20-193 AREA WITHIN GRID COORDINATES 3PR1M17-2:15 (V3.3, H6.0-V5.0, H6.0-V5.0, H8.7-V4.0, H8.9).

SECONDARY TARGET: CENTER OF NAGOYA.

LAST RESORT TARGET: ANY INDUSTRIAL CITY.

METHOD OF BOMBING: COMBAT SQ.

SCHEME OF MANUEVER: LEAD SQ TURNS TO AXIS OF ATK FOLLOWED AT VERY CLOSE INTERVAL BY SECOND SQ.

AIMING POINT VISUAL: BIDG AT GRID COORDINATE (V3.9, H8.0).

AIMING POINT RADAR: CENTER OF THE CITY.

ROUTE OUT AND BACK:

BASE

ASSEMBLY

17 00 N - 144 00 E

27 00 N - 136 30 E

33 27 N - 135 45 E

34 58 N - 135 54 S

IP--POINT ON LAKE BIMA (35 08 N - 136 03 E)

S E C R E T

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SECRET

TARGET

26 00 N - 140 00 E

BASE

AXIS OF ATK: 88 DEG TRUE

FORMATION: SECOND SQ FLIES TO LEFT OF LEAD SQ.

3. A. 499TH GP FLIES TWO SQ, TAKES OFF ZERO HR MINUS 75 MIN BOMBS AT 25,000 FT.
- B. 500TH GP FLIES TWO SQ, TAKES OFF SECOND, BOMBS AT 26,000 FT.
- C. 497TH GP FLIES TWO SQ, TAKES OFF THIRD, BOMBS AT 25,000 FT.
- D. 498TH GP FLIES TWO SQ, TAKES OFF LAST, BOMBS AT 26,500 FT.

X. (1) ZERO HR TO FOLLOW

(2) GAS LOAD: 7400 GALS.

(3) BOMB LOAD: 7 X 500 IB GP FUSED .10 SEC NOSE .025 SEC TAIL AND 5 X 500 IB

IB FUSED INSTANTANEOUS NOSE, NON-DELAY TAIL. THE IB'S WILL BE LOADED TO DROP LAST

(4) INTERVALOMETER SETTING: MINIMUM INTERVAL.

(5) STRIKE PHOTO CAMERAS WILL BE TILTED 8 DEGREES TO THE REAR.

(6) GPS WILL COORDINATE FOR TAKE OFF. MINIMUM TIME INTERVAL BETWEEN GPS PRESCRIBED.

(4) NO CHANGE.

5. NO CHANGE.

O'DONNELL CG 73 BW

SECRET

-2-

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S E C R E T

FROM: O'DONNELL 73RD BW 221353Z

TO : COBOMGP 497
COBOMGP 498
COBOMGP 499
COBOMGP 500

ATTN: A-3

INFO: BOMCCM 21 ATTN: CONTROLLER

BT

BW 73 CONTROL 1688

AMENDMENT 2 TO FO 43

1. CHANGE PAR 1 B (1) TO READ:

1 B (1) LIFEGUARD SUBS WILL BE LOCATED AT FOLLOWING POSITIONS: (A) 34 00 N - 140 30 E (B) 3200 N - 141 00 E (C) 30 00 N - 141 00 E (D) 31 00 N - 138 50 E CALL SIGN "FANNY" PD A DESTROYER WILL BE AT (20 00 N - 142 05 E) BETWEEN 0900K AND 1130K AND THENCE TO (20 00 N - 143 15 E) BETWEEN 1800 K AND 2300K. PD CALL SIGN

OF DESTROYER IS "WHIPHAND"

2. CHANGE PAR 1 B (2) TO READ:

1 B (2) A DUMBO WILL BE ON STATION AT (22 00 N - 140 30 E) BETWEEN 1045K AND 1300K PD CALL SIGN 24V213 PD TWO B-29'S WILL BE ON STATION OVER LIFEGUARD SUB AT (31 00 N - 138 50 E) BETWEEN 1500K AND 1800K PD B-29 CALLS 21V546 AND 27V546 CW AND BARNABY 21 AND 27 VOICE PD

3. CHANGE PAR. 3 D TO READ:

3 D. 498TH GF FLIES TWO SQ. , TAKES OFF LAST, BOMBS AT 26,500 FT. AT LEAST TWO A/C WILL BE DESIGNATED TO CALL EACH SUB AS THEY PASS OVER ENROUTE TO BASE STATING THAT ALL IS FINISHED PD

O'DONNELL CG 73 BW

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S E C R E T

220655Z

TO: COBOMCF 497 A-3
COBOMCF 498 A-3
COBOMCF 499 A-3
COBOMCF 500 A-3

INFO: BOMCOM 21 ATTN CONTROL

AMMENDMENT NR 1 TO FO 43, 73RD BOMB WG

1. CHANGE PARAGRAPH 3C TO READ:
3. C. 497TH GP FLIES TWO SQ, TAKES OFF THIRD AT ZERO MINUS 15 MIN, BOMBS AT 25,500 FT.
2. CHANGE PARAGRAPH 3 X (1) TO READ:
3. X. (1) ZERO HOUR: 0830K 23 JAN 45
3. CHANGE PARAGRAPH 3 X (6) TO READ:
3. X. (6) GROUPS WILL COORDINATE FOR TAKE OFF. MINIMUM TIME INTERVAL BETWEEN FIRST AND SECOND GROUPS. SPECIFIED DELAY BETWEEN SECOND AND THIRD GROUPS. MINIMUM TIME INTERVAL BETWEEN LAST TWO GROUPS.

O'DONNELL CG 73BW

S E C R E T

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S E C R E T

COBOMGP 497
COBOMGP 498
COBOMGP 499
COBOMGP 500

INFO BOMBOM 21 ATTN CONTROLLER

CONTROL _____

ANNEX NO 2 TO FO 43

COMMUNICATIONS

1. 7920 KC WILL BE USED ON CW FOR DUMBO ONLY. 4475 KC WILL BE VOICE ONLY BY DUMBO AND CW AND VOICE FOR LIEEGUARD. 7920 KC WILL REPLACE 4420 KC ON CHANNEL 5 OF AN/ART-13.

O'DONNELL CG 73 BW

S E C R E T

-55-

SECRET

COBOMGP 497
COBOMGP 498
COBOMGP 499
COBOMGP 500

INFO BOM COM 21 ATTN CONTROLLER

CONTROL _____

ANNEX NO 1 TO FO 43

RADAR COUNTER MEASURES

1. EACH CP WILL EQUIP ONE A/C WITH SEARCH EQUIPMENT AS FOLLOWS C1N
 - (1) AN/APR4 (WITH TU 16 AND 17)
 - (2) AN/APR5
 - (3) AN/APA6X
 - (4) AN/ANQ 2
2. EACH CP WILL PROVIDE ONE RADAR OBSERVER (7888) TO OPERATE THIS EQUIPMENT.
3. OPERATION WILL BE IN ACCORDANCE WITH TAC SOP 35-1 WITH THE FOLLOWING

EXCEPTIONS:

- A. RADAR OBSERVERS OPERATING EQUIPMENT SPECIFIED UNDER PARA 1 WILL RECORD ANY JAP VOICE TRANSMISSION INTERCEPTED. THE FREQUENCY BAND FROM 30 TO 100 MC WILL BE CONSTANTLY MONITORED IN THE TARGET AREA (FOR THIS PURPOSE THE TARGET AREA IS DEFINED AS THAT INCLUDING THE MAINLAND AND EXTENDING OUT FIFTY MILES OVER THE OCEAN). JAP VOICE TRANSMISSION HAVE BEEN HEARD BETWEEN 90 AND 95 MC. THE POSSIBLE USE OF A LOWER VHF CHANNEL BETWEEN 30 AND 60 MC FOR G.C.I. WILL BE FULLY EXPLORED. IN THE ABSENCE OF VHF SIGNALS THE 100, 150 AND 200 MC RADAR BANDS WILL BE SEARCHED.
- B. RECORDERS (AN/ANQ2 WILL BE USED TO RECORD VOICE TRANSMISSIONS AND COMMENTS MADE BY THE OBSERVER. ENEMY RADAR SIGNALS WILL NOT BE RECORDED.

O'DONNELL CG 73 BW

DECLASSIFIED
E.O. 11652, Sec. 3(E) and 5(D) or (F)
By NAVJ 740120
C60/B3 NARS, Date 08/19/83

~~SECRET~~

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