

Folder No. 1

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

MISSION # 7 Tokyo "SAN ANTONION 1"
24 November 1944

2-5239-89

DECLASSIFIED
Authority UND760063
By PI NARA Date 8/26/05

COPY NO. 3

DECLASSIFIED
UND-760063
By RBEM NARS, Date 8/05

SECRET
By Authority of the Commanding
General
12/6/44 Date
JLO Initials

TACTICAL MISSION REPORT

TARGET; MUSASHINO A/C PLANT-TOKYO

XXI BOMBER COMMAND
HQ 73RD BOMB WING

FIELD ORDER NO. 21
MISSION NO. 7
DATE 24 NOVEMBER 1944

2-5239-89

SECRET

HEADQUARTERS
73RD BOMBARDMENT WING
APO #5666, % POSTMASTER
SAN FRANCISCO, CALIFORNIA

CONSOLIDATED MISSION REPORT

Field Order No. 21
Targets: Musashino Plant, Tokyo,
Dock and Urban Area,
Tokyo.

Mission No. 7
Date of Mission
24 November 1944

Table of Contents

Tactical Narrative	1
Vertical Chart	3
Formations	4
Basic Data	8
Loss and Damage	14
AA and Air-to-Air Bombing	15
Combat Data	18
Observations and Crew Comments	23
General Technical Data	25
Bombing Data	26
Bomb Impact Data	28
Damage Assessment	28
Bomb Plot	29
Navigation Narrative	34
Bombardier's Report	35
Weather Report	36
CFC Gunnery	43
Photographic Officer's Report	45
Communications	46
Radar	48
RCM	49
Statistical Report	52
Field Order	62
<i>Flight Engineer</i>	77

SECRET

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

S E C R E T

Headquarters
73rd Bombardment Wing
APO #5666, % PM
San Francisco, Cal.

Field Order No. 21
Mission No. 7
24 November 1944

TACTICAL NARRATIVE

1. The Target

Field Order Number 21 of the 73rd Bombardment Wing directed that one hundred and sixteen (116) aircraft, forming six (6) Air Combat Groups, take off from base to bomb the following Tokyo targets: the Musashino Plant (primary target); in case of necessity a secondary and last resort target consisting of the docks and urban area of Tokyo was indicated.

2. Take-off

In compliance with this order, the first aircraft took off at 232016Z, the last aircraft at 232254Z. A total of one hundred and eleven (111) aircraft were airborne.

3. Bomb Loading

Airborne aircraft carried seven hundred and seventy-seven (777) 500-lb GP bombs (Type M64) and three hundred and thirty-three (333) Incendiary Bombs (Type M76), a total of two hundred and seventy-seven and one half (277.5) tons.

4. Route Out

The 1st, 3rd, and 5th Combat Groups were directed by Field Order Number 21 to attack via westerly approach route using Mt. Fuji as IP (Route "A"), and the 2nd and 4th Combat Groups to use easterly approach with initial point at Ohami Airfield (35°28'N-140°25'E) (Route "B"). There was no fighter escort. Due to adverse winds along Route "B", all Squadrons were ordered to fly Route "A".

5. Bombing Data

Following the assembly by Groups, the mission proceeded to target; ninety-four (94) aircraft reached the target area; seventeen (17) of the aircraft taking off aborted. The first aircraft released its bombs at 240312Z and the last aircraft at 240537Z, a total of eighty-eight (88) aircraft releasing bombs on both targets, twenty-four (24) A/C on the Musashino Plant, and sixty-four (64) aircraft over the dock and urban area of Tokyo. Six (6) aircraft failed to bomb because of mechanical failures. Owing to weather conditions fifty-three (53) aircraft bombed visually, thirty-five (35) by radar.

6. Enemy Opposition

Fighter opposition over the target area came from approximately one hundred and twenty-five (125) airborne enemy aircraft. Eighty-eight (88) of the attacks came in level with our aircraft, fifty-four (54) of them from above, and twenty-four (24) from below. Several crews reported sighting as many as sixty (60) to seventy-five (75) aircraft at one time, the majority of which were from 2,000 to 5,000 feet below. The majority of attacks (from 11 to 1 o'clock) were made by an estimated forty-four (44) TOJOs. Attacks were also made by twenty-eight (28) ZEKES, twenty-six (26) TONYs, sixteen (16) NICKs, and eight (8) IRVINGs; attacks were also made by ZEKE 32 (4), OSCARS (4), JACK (1), and DOC (1). BETTYs, RUFES, JANICES and a number of unidentified single- and twin-engine aircraft were reported also as being airborne in the target area.

S E C R E T

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

S E C R E T

Tactical Narrative, Mission No. 7, page 2

7. Enemy Attack Data

There seem to have been no planned methods of attack or coordination; the majority of them were executed by individual fighters. Almost all breakaways were below and to the right and left. Approximately one hundred (100) passes were started which did not materialize.

8. Antiaircraft Fire

Antiaircraft fire over the primary target area was meager to moderate and generally inaccurate. Heavy flak was reported over the primary target at altitudes varying from 28,000 to 32,000 feet. Deviations were generally from below, although a few bursts occurred five hundred (500) feet to one thousand (1000) feet above the formation; flak followed the formation and got closer with succeeding bursts. All bursts were behind and right and left. Fire was continuously-pointed. Over the docks and industrial area of Tokyo antiaircraft fire was moderate to meager and generally accurate at altitudes from 28,000 feet to 32,000 feet.

9. Route Back

Aircraft were to return individually from 100 miles off the enemy coast or at a further point if under enemy attack. The return from the target area was made in formation as directed by Field Order Number 21, to a point opposite Iwo Jima, from which aircraft returned to base individually. The first aircraft landed at 240926Z and the last one at 241259Z.

10. Damage Assessment

Photo interpretation indicates forty-four (44) bursts, sixteen (16) in the target area. The lead Squadron, bombing visually, had five (5) bursts on the target; the remainder were in the barracks and warehouse area just to the northeast of the target. Since only seven percent (7%) of all bombs dropped were observed in the primary target area, results of the bombing were not considered satisfactory.

11. Own Losses

Our combat losses consist of one aircraft lost owing to empennage damage which resulted when the aircraft was struck by an enemy fighter reported to be out of control. Another aircraft was lost when it ran out of fuel and ditched. Eight (8) aircraft received generally minor battle damage from enemy aircraft fire and flak.

Personnel losses were one man killed, eleven men missing, and four men injured.

12. Claims

Seven (7) enemy aircraft are claimed as destroyed, eighteen (18) probably destroyed, and nine (9) damaged.

13. Weather

Weather over the target area varied from 2/10ths to 9/10ths cloud coverage. Frosting within the airplanes occurred, in general, above 25,000 feet.

S E C R E T

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

S E C R E T

Tactical Narrative, Mission No. 7, page 3

14. Observations

Crews reported seeing a large radar installation at 22°50'N, 144°58'E (Uracas Island). One large BB or CA and six (6) AK were observed in Tokyo Harbor.

15. Landing Data

Because of congested landing traffic at Saipan utilizing the single strip available at Isley No. 1, it was planned to divert Combat Groups Numbers 2 and 4 to Guam and return the following day. Eighty-nine (89) of our aircraft landed at Saipan, eighteen (18) at Guam, and two (2) at Tinian.

S E C R E T

2

DECLASSIFIED

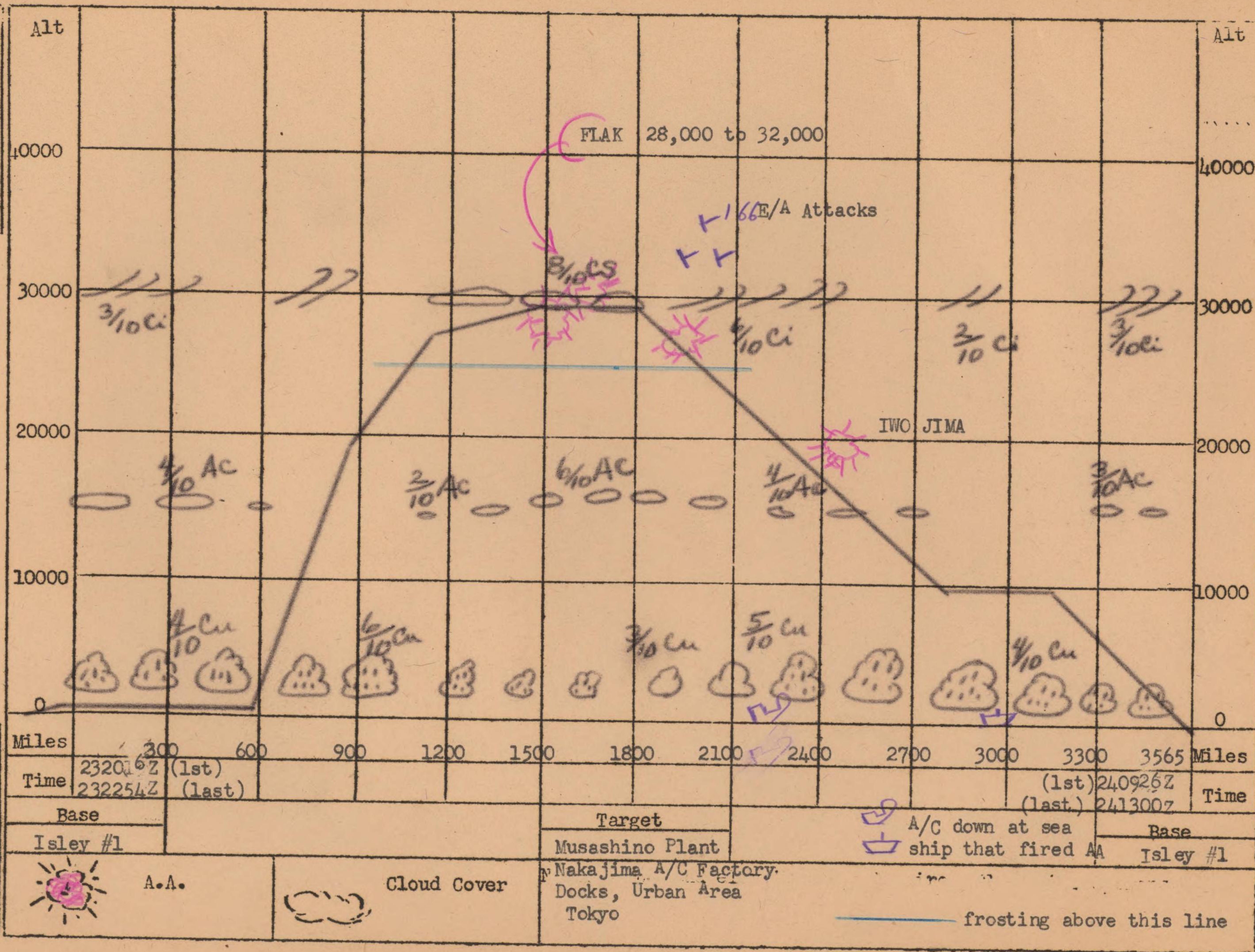
Authority UND760063

By PT NARA Date 8/26/05

F.O. NO. 21
Mission No. 7
Date of Mission 24 November 1944

Group or Wing 73rd Wing
Date 29 Nov 44
By Capt J.T. Davis

VERTICAL CHART



Miles	300	600	900	1200	1500	1800	2100	2400	2700	3000	3300	3565	Miles
Time	23206Z (1st)	232254Z (last)									(1st) 240926Z	(last) 241300Z	Time
Base	Isley #1						Target			Musashino Plant			
Base	Isley #1						Target			A/C down at sea ship that fired AA			
Base	Isley #1						Target			Nakajima A/C Factory. Docks, Urban Area Tokyo			

SECRET

Mission #7
 F.O. #21
 24 Nov 1944.

FORMATIONS

Combat Squadron Formations of the 497th Bomb Group

Take-Off 2016Z

Heading 63°

CUT	CUT	I P
OVER TARGET NO. 1	OVER TARGET NO. 2	RETURN
	NONE	Aircraft Returned Individually Interval - Route Spacing - SCP
Time - 0312Z Heading - 63°T	Legend: **Turned short of primary target and bombed target of opportunity. (Shimada) *This A/C down at sea after leaving target.	

COMMENTS: (Report position of your group to wing (a) according to F.O.;
 (b) deviations if any and reasons)

Non-Airborne -
 Aborts -
 Did not take-off with this squadron -

SECRET

Could not take off with 870th so joined this Squadron -
 Left Sq and bombed with 498th -

Mission #7
 F. O. #21
 24 Nov 1944

FORMATIONS

Combat Squadron formation of 498th Bomb Group

Take-off 232035Z

Heading 64° T

CUT	CUT	IP
OVER TARGET NO. 1	OVER TARGET NO. 2	RETURN
NONE	Time - 0342Z Same as over IP Headings 110° T 164° T 171° T	Aircraft Returned Individually Interval - Route Spacing - SOP

COMMENTS: (Report position of your group to wing (a) according to F.O.;
 (b) deviations if any and reasons)

Legend: Aborts **SECRET**

Mission #7
 F. O. #21
 24 Nov 1944

FORMATIONS

Combat Squadron Formations of 499th Bomb Group

Take-off 2113Z

Heading 63° T

CUT	CUT	I P
OVER TARGET NO. 1	OVER TARGET NO. 2	RETURN
NONE		<p>Aircraft Returned Individually</p> <p>Interval - Route Spacing - SOP</p>

COMMENTS: (Report position of your group to wing (a) according to F.O.;
 (b) deviations if any and reasons)

SECRET

Legend: ⊕ Individual A/C
 △ Aborted

6

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

Mission #7
 F. O. #21
 24 Nov 1944

FORMATIONS

Combat Squadron Formations of 500th Bomb Group

Take-off 2140Z		Heading - 63° T
CUT	CUT	I P
*		
OVER TARGET NO. 1	OVER TARGET NO. 2	RETURN
 Time - 0439Z Heading - 63° T	 Time - 0439Z Heading - 71° T Over Target of Opportunity 	Aircraft Returned Individually Interval - Route Spacing - SOP

COMMENTS: (Report position of your group to wing (a) according to F.O.;
 (b) deviations if any and reasons)

Legend:

△ Aborts

* These A/C were to form part of 6th Combat Group. This rendezvous was not accomplished

7 SECRET

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

SECRET

Headquarters
73rd Bombardment Wing

Mission No. 7
Field Order No. 21
24 November 1944

CONSOLIDATED MISSION REPORT

BASIC DATA

1. TIME OF TAKE-OFF:

- a. 497th Bomb Gp: from Isley Field #1, Saipan.
Time: First A/C - 232016Z
Last A/C - 232237Z
- b. 498th Bomb Gp: from Isley Field #1, Saipan.
Time: First A/C - 232035Z
Last A/C - 232250Z
- c. 499th Bomb Gp: from Isley Field #1, Saipan.
Time: First A/C - 232113Z
Last A/C - 232254Z
- d. 500th Bomb Gp: from Isley Field #1, Saipan.
Time: First A/C - 232141Z
Last A/C - 232225Z

2. TIME OF LANDING:

- a. 497th Bomb Gp:
 - (1) Place: Isley Field #1, Saipan
Time: First A/C - 240926Z
Last A/C - 241154Z
 - (2) Deviations from landings ordered:
 - (a) 1 A/C landed at Tinian at 241235Z because of engine trouble.
 - (b) 1 A/C down at sea.
- b. 498th Bomb Gp:
 - (1) Place: Isley Field #1, Saipan
Time: First A/C - 241120Z
Last A/C - 241216Z
 - (2) Place: Guam
Time: First A/C - 241001Z
Last A/C - 241115Z
 - (3) Deviations from Landings Ordered:
 - (a) 1 A/C landed Saipan instead of Guam 241010Z.
 - (b) 1 A/C landed Saipan instead of Guam 241018Z.
- c. 499th Bomb Gp:
 - (1) Place: Isley Field #1, Saipan
Time: First A/C - 241037Z
Last A/C - 241218Z
 - (2) Place: Depot Field, Guam
Time: First A/C - 241106Z
Last A/C - 241259Z
 - (3) Deviations from landings ordered:

8

SECRET

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

S E C R E T

Basic Data (cont'd)

- (a) 8 A/C landed at Saipan instead of Guam, Depot Field; first A/C - 241046Z; last A/C - 241225Z
- (b) 1 A/C landed at Agana Field, Guam, instead of Depot Field, Guam, at 241121Z.

d. 500th Bomb Gp:

- (1) Place: Isley Field #1, Saipan.
Time: First A/C - 240948Z
Last A/C - 241220Z

- (2) No deviations from landings ordered.

3. SQUADRON ASSEMBLY:

Group	Place	Altitude	Time of arrival of 1st A/C of Squadron
497th	No Information Available		
498th	15°40'N;145°20'E	1,000'	Unknown
499th	16°02'N;145°40'E	1,000'	232142Z to 232348Z
	to		
	17°00'N;143°52'E		
500th	15°40'N;145°20'E	1,000'	Unknown

4. GROUP ASSEMBLY:

Group	Place	Altitude	Time of arrival of 1st Squadron
497th	16°27'N;144°34'E	1,000'	232110Z
498th	16°27'N;144°34'E	1,000'	Unknown
499th	No Group assembly because of distance between Squadrons		
500th	16°27'N;144°34'E	1,000'	232228Z

5. WING ASSEMBLY:
None ordered.

6. AIRCRAFT RETURNING EARLY:

A/C No.	Sq No	Place	Time	Reason
A-2 (4595)	869	Saipan	240135Z	Lost #3 engine
A-11 (4741)	869	Saipan	232035Z	#1 prop governor stuck at high rpm
A-43 (4641)	871	Saipan	240345Z	#1 engine failure
A-45 (3413)	871	Saipan	240030Z	Engine malfunction
A-46 (4655)	871	Saipan	240245Z	Internal failure #2 engine
A-48 (4648)	871	Saipan	240412Z	Oil leak #2 engine
T-1 (3430)	873	Saipan	240901Z	#2 engine failed
T-6 (4695)	873	Saipan	240032Z	#2 engine losing oil
T-4 (4611)	873	Saipan	232259Z	#3 engine cutting out; #4 engine oil leak
T-43 (4663)	875	Tinian	232234Z	Runaway prop, #2 engine
V-4 (4665)	877	Saipan	232130Z	#4 engine fuel pump failure
V-26 (3438)	878	Saipan	240114Z	Blown cylinder head #3 engine
Z-10 (5219)	881	Saipan	240213Z	#2 engine out
Z-1 (4656)	881	Saipan	240245Z	#1 engine feathered
Z-27 (4668)	882	Saipan	240322Z	#2 cylinder head on #4 engine blown out
Z-49 (4671)	883	Saipan	240301Z	#4 engine out

7. ROUTE OUT:

a. Lead combat Group:

S E C R E T

9

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

Basic Data (cont'd)

From	Time	Altitude	I. A. S.
15°08'N;145°43'E (Base)	232030Z	1,000'	205
To:			
16°27'N;144°30'E (Assembly Point)	232110Z	1,000'	205
24°00'N;139°00'E	240020Z	20,000'	200
32°50'N;138°00'E	240230Z	29,000'	195
35°22'N;138°44'E (I.P.)	240312Z	29,000'	195
35°42'N;139°35'E (Target)	240320Z	28,000'	200

b. Second combat Group

From	Time	Altitude	I. A. S.
15°08'N;145°43'E (Base)			
To:			
17°20'N;143°46'E	232200Z	800'	205
19°35'N;142°32'E	232300Z	1,400'	197
22°16'N;140°00'E	232400Z	1,200'	198
24°40'N;139°16'E	240100Z	10,000'	203
32°22'N;137°40'E	240300Z	28,000'	195
35°23'N;138°44'E	240335Z	30,300'	198
35°42'N;139°43'E (Target)	240343Z	29,400'	192

c. Third combat Group

From:	Time	Altitude	I. A. S.
15°08'N;145°43'E (Base)	232230Z	1,000'	205
To:			
16°27'N;144°30'E (Assembly Point)	232310Z	1,000'	205
24°00'N;139°00'E	240220Z	20,000'	200
32°50'N;138°00'E	240430Z	29,000'	195
35°22'N;138°44'E (I.P.)	240512Z	29,000'	195
35°42'N;139°35'E (Target)	240520Z	28,000'	200

d. Fourth combat Group

From:	Time	Altitude	I. A. S.
15°08'N;145°43'E (Base)	232200Z	---	---
To:			
18°20'N;145°40'E	232317Z	1,400'	205
22°25'N;139°45'E	240117Z	1,100'	205
29°40'N;137°30'E	240317Z	2,200'	200

e. Fifth combat Group:

From	Time	Altitude	I. A. S.
15°08'N;145°43'E	232156Z	325'	Unknown
To:			
22°30'N;140°15'E	240100Z	1,000'	Unknown
27°35'N;138°20'E	240245Z	20,000'	Unknown
33°00'N;137°30'E	240400Z	30,000'	Unknown
Tokyo	240452Z	32,000'	Unknown

f. Sixth combat Group:

Same data as are shown in Section 7D.

8. ROUTE BACK:

a. Lead combat Group:

From	Time	Altitude	I. A. S.
35°42'N;139°35'E	240320Z	28,000'	200
To:			
35°20'N;141°00'E	240340Z	26,000'	190

SECRET

Basic Data (cont'd)

From	Time	Altitude	I. A. S.
To:			
27°00'N;143°45'E	240515Z	19,000'	190
Base	241030Z	---	---

b. Second combat Group:

35°42'N;139°43'E	240343Z	29,400'	195
To:			
30°48'N;141°30'E	240500Z	21,400'	195
23°06'N;142°04'E	240700Z	19,000'	195
15°48'N;145°00'E	240900Z	9,400'	183
Base	---	---	---

c. Third combat group:

35°42'N;139°55'E	240520Z	28,000'	200
35°20'N;141°00'E	240540Z	26,000'	190
27°00'N;143°45'E	240715Z	19,000'	190
Base	241230Z	---	---

d. Fourth combat Group:

Target	240504Z	30,000'	195
To:			
35°00'N;141°10'E	240517Z	30,000'	190
27°00'N;143°35'E	240717Z	18,000'	190
19°47'N;145°05'E	240917Z	6,000'	185
Base	---	---	---

e. Fifth combat Group:

Tokyo	240452Z	32,000'	Unknown
To:			
31°45'N;142°15'E	240600Z	21,000'	Unknown
24°45'N;144°15'E	240800Z	13,000'	Unknown
18°05'N;146°50'E	241000Z	7,000'	Unknown
Base	241109Z	325'	Unknown

f. Sixth combat Group:

Same data as are shown in Section 8D.

9. INITIAL POINTS:

a. Initial Points as ordered:

- (1) Targets 1 and 2 (1st, 3rd, 5th Combat Groups)
Mt. Fuji (35°23'N;138°42'E)
- (2) Targets 1 and 2 (2nd, 4th, 6th Combat Groups)
Chami A/F (35°28'N;140°25'E)
- (3) No Initial Points specified for targets 3 and 4.

b. Initial Points as flown:

- (1) 497th Bomb Group - 35°22'N;138°44'E; 240312Z; 29,000';
No deviation.
- (2) 498th Bomb Group - 35°23'N;138°44'E; 240335Z; 30,300';
Unfavorable winds compelled abandonment of Route B.

//

SECRET

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

S E C R E T

Basic Data, Par 9 (cont'd)

- (3) 499th Bomb Group - 35°23'N; 138°44'E; 240450Z; 31,000';
See 9 b (2).
- (4) 500th Bomb Group - No information available.

10. TARGETS ATTACK DATA:

a. No. of A/C attacking target:

- (1) Primary 24
- (2) Secondary 58 88
- (3) Target of Opportunity 6
- (4) Last Resort Target 0

b. Times over Target:

Group	Target No.	First A/C	Last A/C
497th*	1	240312Z	240532Z
498th	2	240335Z	240537Z
499th**	2	240423Z	240523Z
499th	1	240439Z	
500th	1	240444Z	240515Z
500th	2	240439Z	240442Z
500th	3	240507Z	240509Z

Stragglers: * A/C A-49(3414) was forced to turn back from route to primary target because of engine trouble and selected shipping in harbor at Shimada as target of opportunity.

* A/C A-51(5231) because of engine trouble could not stay in formation but later joined a formation of 498th A/C and stayed with it to bomb secondary target.

** No simulation of Squadron formation over target.

c. Heading and altitude from I.P. to target:

Group	Heading	Altitude
497th	60°	27,980' to 30,400'
498th	52° to 85°	27,850' to 31,500'
499th	65° (approx)	28,500' to 32,900'
500th	63° to 71°	28,000' to 32,800'

d. Heading and altitude over target:
See No. 10c

e. Breakaway:

Group	Heading	Altitude
497th	100°	See Sect. 10c
498th	110°	See Sect. 10c
499th	180°	See Sect. 10c
500th	Unknown	See Sect. 10c

S E C R E T

12

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

SECRET

Basic Data, Par. 10 (cont'd)

- f. Rally Point
None
- g. Extra runs over target
None
- h. Reasons for failure to attack

<u>A/C No.</u>	<u>Reason</u>
T42(5212)	Bombs jettisoned -- #2 engine on fire
V(422)	Aborted at coast of Japan -- engine trouble
V(222)	Over target -- rack malfunction
V28(5220)	Over target -- jettisoned bombs -- A/C reached target with radar inoperative. Unable to find opening in clouds for visual bombing. Headed back over Tokyo Bay to make second run but found supply of fuel so limited that it was decided to jettison bombs and head for base.
V48(4679)	Over target -- jettisoned bombs -- did not observe leader's bomb bay doors open so did not bomb
Z(435)	Primary -- Rack malfunction
Z(221)	Primary -- Rack malfunction

11. ESCORT DATA:
No escort ordered.

SECRET

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

SECRET

Headquarters
3rd Bombardment Wing

Mission No. 7
Field Order No. 21
24 November 1944

CONSOLIDATED MISSION REPORT

LOSS AND DAMAGE

12. CASUALTIES -- PERSONNEL:

See table X - Casualties, Consolidated Statistical Summary, Comments: 2nd Lt. Carl W. McKinney, bombardier, received a compound fracture of his right tibia from a Japanese fighter's 20-mm shell. He also has metallic foreign bodies in his scalp and left thigh. ((Complete list of casualties shown in Table X, Consolidated Statistical Summary.))

13. AIRCRAFT LOST:

A/C A-26(4622) -- 35°10'N, 141°20'E -- approximately 0338Z -- rammed by a TJO (or HAMP or ZKB) coming in from 4:30 o'clock; enemy A/C probably attempted to avoid ramming (or may have been dead at the time); Some of A-26's crew probably out of action because of previous attack by an IRVING; no firing from either of colliding planes; enemy hit A-26's stabilizer; both planes seen falling into sea and no parachutes seen.

A/C #42-24679 -- 17°00'N, 145°20'E -- 1038Z -- ditched because of lack of fuel -- crew rescued by ID.

14. AIRCRAFT MISSING:

None

15. TOTAL AIRCRAFT FAILING TO RETURN:

870th Bomb Squadron - 1
879th Bomb Squadron - 1

16. DAMAGE TO AIRCRAFT:

871st Bomb Squadron - A-42(4626) -- flak -- shortly after leaving target -- holes in leading edge of right wing -- fuel cell #4 damaged.

873rd Bomb Squadron - T-2(4605) -- 20-mm -- time unknown -- 2 glass panels in nose shattered.

873rd Bomb Squadron - T-7(4603) -- 20-mm and 12.7 cal -- time unknown -- right outboard wing panel damaged -- jack screw assembly on nacelle door broken.

874th Bomb Squadron - T-25(4642) -- flak -- time unknown -- holes in forward bomb bay doors.

875th Bomb Squadron - T-49(4544) -- bullets -- time unknown -- holes in vertical stabilizer.

878th Bomb Squadron - 24647 -- flak -- time unknown -- plane damaged slightly.

878th Bomb Squadron - 24693 -- 50 cal -- time unknown -- 2 holes in left wing.

SECRET

-14-

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

SECRET

Headquarters
3rd Bombardment Wing

Mission No. 7
Field Order No. 21
24 November 1944

CONSOLIDATED MISSION REPORT

AA AND AIR TO AIR BOMBINGS

17. ENEMY ANTI-AIRCRAFT FIRE:

Primary target (37°43'N, 139°35'E): Meager to moderate and generally inaccurate heavy flak was reported by most of the 24 A/C over the primary target at altitudes varying from 28,000 to 32,000 feet, although several A/C encountered accurate AA fire over this area. One A/C received slight flak damage while flying at 28,000 feet and a second A/C reported that it was rocked by AA fire at approximately the same altitude. The damaged A/C occupied #2 position of the lead flight, lead squadron, third group of wing.

Deviations generally were below, although a few bursts occurred 500 to 1,000 feet above the formation. Initial bursts were below by 2,000 feet and one-half mile behind, but the flak followed the formation and got closer with progressive bursts. All the bursts were behind and right and left.

Fire was continuously-pointed in all observations while over this target. Clouds were seven-tenths to eight-tenths undercast.

Bursts were black with the exception of one burst which had the appearance of phosphorus. No enemy A/C were near the formation at the time of this observation.

Secondary target (Dock area, Tokyo waterfront): Meager to moderate and generally accurate anti-aircraft fire was encountered over this area at altitudes ranging from 28,000 to 32,000 feet. A few A/C reported the flak as inaccurate. Fifty-eight A/C were over the secondary target.

Three A/C damaged by flak over the secondary target are as follows: #2 in the first element of composite group; #2 in the third element of composite group; and #4 in the left wing of the fourth combat group. Altitudes at which these A/C were damaged has not been reported.

Bursts were level, leading and following, and right and left, with no preponderance of deviations in any one direction.

Cloud conditions varied from seven-tenths to ten-tenths undercast. A few barrages and predicted concentrations were observed, but fire encountered was generally continuously-pointed.

Bursts were small and black, but reports of "white streamers from white bursts" indicates the use of phosphorus. One crew observed a free balloon, resembling a meteorological balloon, at 28,000 feet. This balloon was red and there was nothing attached to, or suspended from it.

Other areas: Four accurate, continuously-pointed bursts at 29,000 feet were reported by one A/C while west of Choshi (35°42'N, 140°52'E). Six or seven inaccurate bursts were reported by one A/C while en route from the IP to the secondary target. These occurred at 29,000 feet. Meager, inaccurate fire at 29,000 feet was observed by one A/C while over the island of Miyaka Jima (35°50'N, 139°30'E). No flak was reported by A/Cs attacking targets of opportunity or targets of last resort.

This was a daylight raid.

15
SECRET

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

SECRET

AA and Air to Air Bombings, Par 17 (cont 'd)

Comments: There is evidence that some of the fire encountered over the primary and secondary targets on this mission was radar-controlled. Continuously-pointed, inaccurate to accurate fire was experienced through seven-tenths to ten-tenths undercast at altitudes varying from 28,000 to 32,000 feet and it is quite likely that this fire was directed by gun-laying radar.

Observation by one crew of a red balloon resembling a meteorological balloon while flying at 28,000 feet is probably an exceptional coincidence. It is doubtful that this balloon was used to improve firing, inasmuch as there was no increase in intensity or accuracy of fire while in the area of the balloon. It is also most likely that this balloon was released from the ground and not from some projectile.

18. OUR TACTICS VERSUS AA:

Evasive action: Changes of altitude and slight turns were employed as evasive measures.

19. AIR TO AIR BOMBING AND ROCKETS:

Only three instances of air-to-air bombing were reported. These are each described separately below:

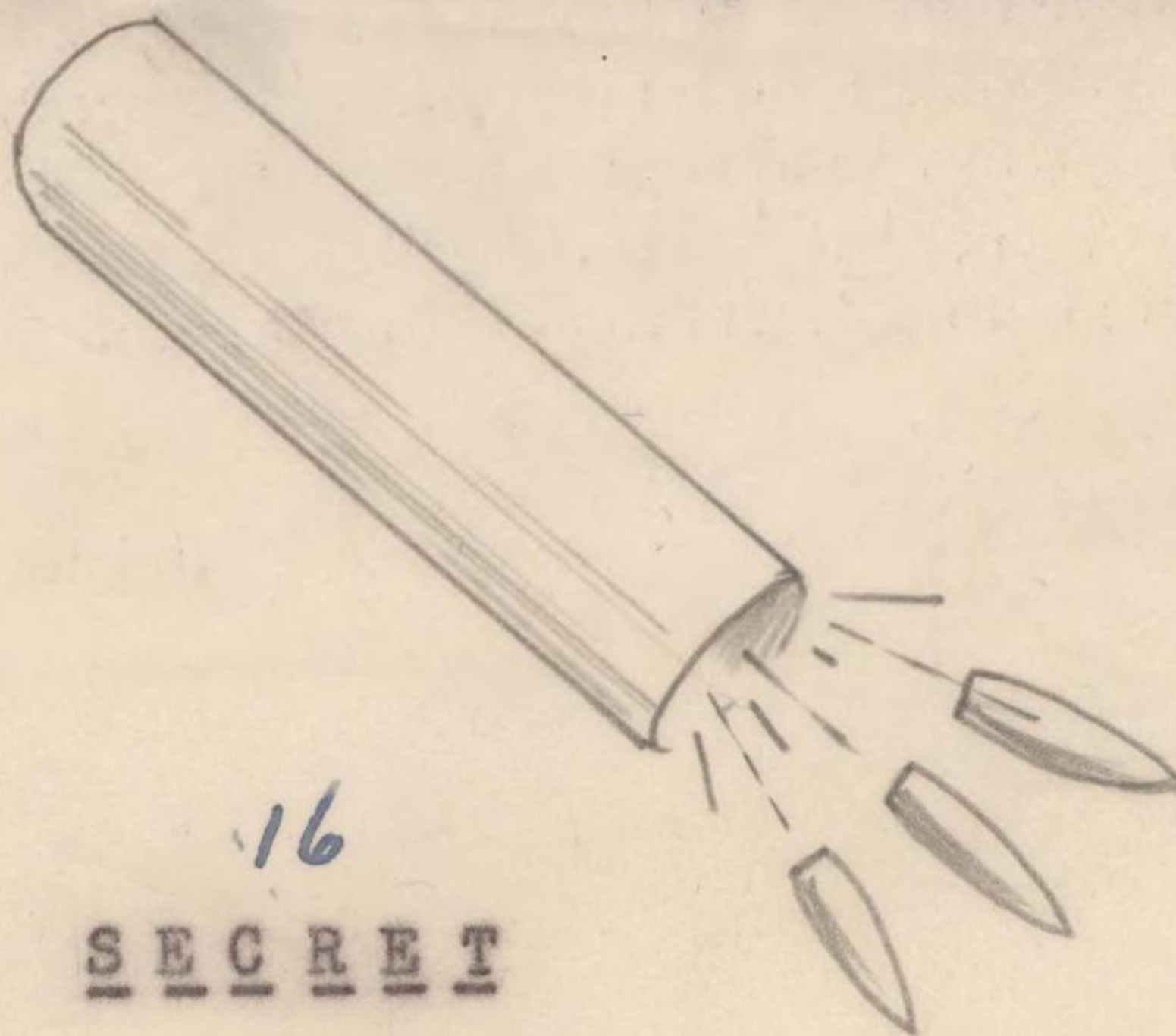
a. The right wing aircraft of the right wing flight of the Second Squadron of the Fourth Combat Group had moved ahead on a turn so as to be in the leading Squadron formation and was outside right airplane in that formation when going into the bomb run.

While entering the bomb run at 30,500', the crew of this aircraft noticed a deep black TOJO with red roundels approaching at about 2 o'clock and 500' below. The Tojo carried a large tube, thought by the crew to be rocket launchers, under each wing. These tubes were so large as to cause the crew to first believe the E/A was equipped with pontoons. A burst of fire out of range from the B-29 apparently caused the TOJO to alter its course to the right and come under the formation leader from below, where the observing crew lost sight of it.

The TOJO was not seen again; however, almost immediately after this, the observing crew noticed three large, white bursts underneath a flight behind the leading flight. Each of these bursts came from a round canister estimated to be about eight feet long and two feet in diameter. No trail, as might be left by a rocket, was observed.

The burst came from the leading and lower end of the canister. From the bursts came several large "shell-like" fragments estimated to be two or three feet in length. The canister appeared to drop slowly although there was no evidence of an attached parachute. The canister did not disintegrate during the explosions, nor were the projectiles seen to explode.

There was no confirmation of this observation, illustrated below, by other crews, although it was witnessed by several members of the reporting crew.



DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

S E C R E T

AA and Air-to-air Bombings, Par. 19 (cont'd)

b. An airplane crew flying in the Second Combat Group reported three unidentified T/E fighters, which looked like MOSQUITOS, dropping four white phosphorus bombs each on the formation from approximately 100' above. These bombs exploded behind the formation.

c. A B-29 crew, while over the target in the right wing position of the Second Combat Group, observed two or more rockets going level between the observing aircraft and the flight leader. The projecting aircraft was not identified. Rockets were reported to have red tail flames and exploded with an orange flash.

17

S E C R E T

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

SECRET

Headquarters
73rd Bombardment Wing

Field Order No. 21
Mission No. 7
24 November 1944

CONSOLIDATED MISSION REPORT

COMBAT DATA

20. ANALYSIS OF ATTACKS BY ENEMY A/C:

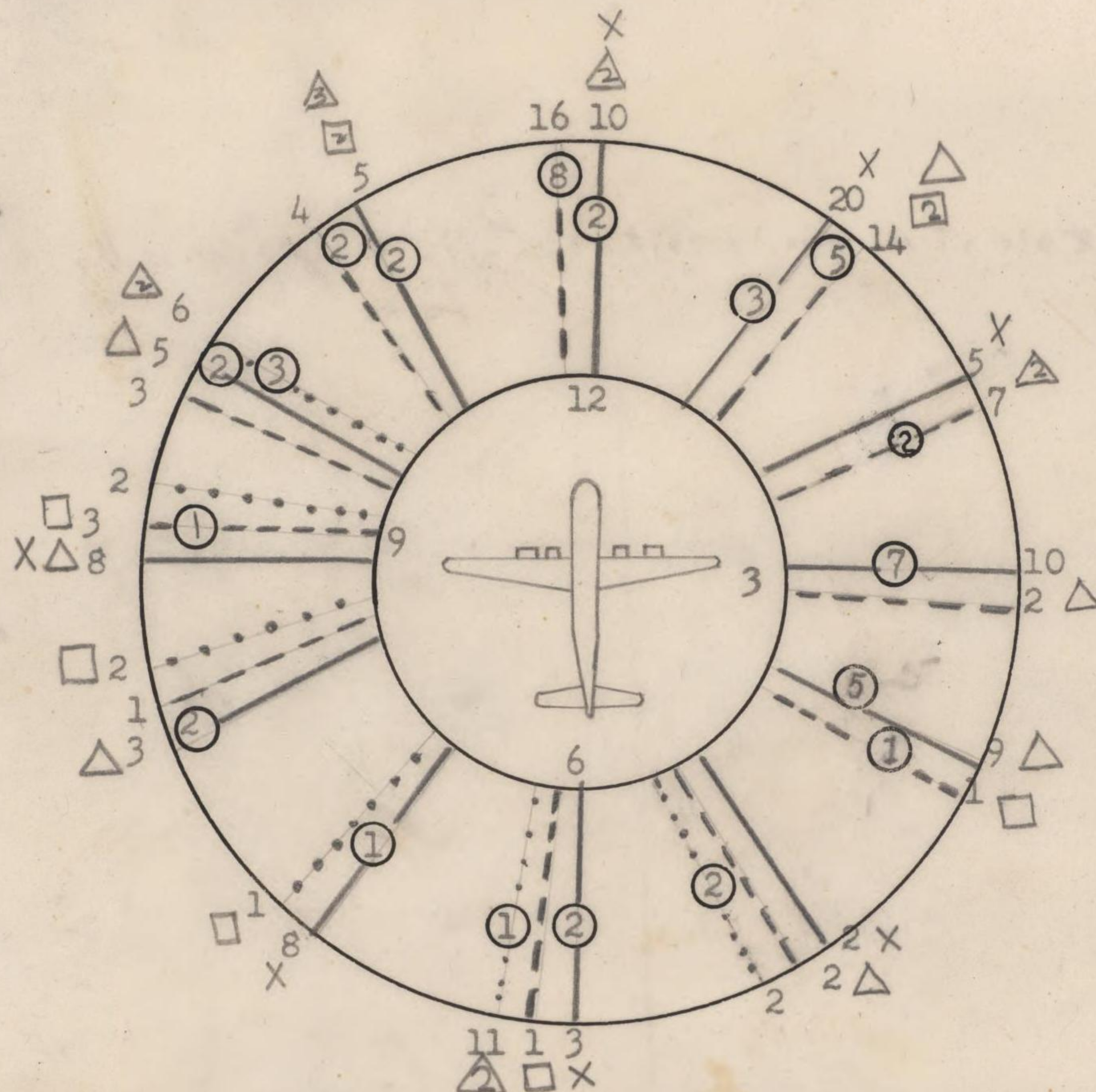
LEGEND

ATTACKS

Level——
From Above---
From Below...

ENEMY A/C

Destr'd-X
Prob
Dest'd-△
Damaged-□



TOTALS 166

Level	88
From Above	54
From High	0
From Below	24
Low	0

E/A Destr'd	7
E/A Prob Destr'd	18
E/A Damaged	9

Note: The number of E/A attacking is shown at the outside end of each line. Attacks made by T/E E/A 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 E/A OPENED FIRE:

Yds	100	200	300	400	500	600	700	800	900	1000 or more
No A/C Firing		5	42	23	32	35	11	2		16

Comments: Enemy aircraft attacking from ahead generally opened fire at longer range (app 600 yds) than did aircraft attacking from other directions.

SECRET

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

S E C R E T

Combat Data (contd)

22. TYPES OF ENEMY AIRCRAFT ATTACKING:

The following listing shows the number of attacks by type of aircraft:

TOJO	44	IRVING	8
ZEKE	28	OSCAR	4
ZEKE (32)	4	JACK	1
TONY	26	DOC	1
NICK	16	Unidentified (S/E)	8
		Unidentified (T/E)	26

Among the unidentified twin-engine aircraft were several in-line engine airplanes described only as resembling the MOSQUITO. It was reported as being very fast and maneuverable.

22-A. TYPES OF E/A SIGHTED:

Because the six Combat Groups were over the target area at different times throughout a 2-hour period, the number of separate airborne enemy aircraft sighted can not be accurately determined. However, it is estimated that there were approximately 125 separate enemy aircraft airborne in the target area during these attacks. Several crews reported sighting as many as 60 to 75 enemy aircraft at one time, a great number of which were from 2,000' to 5,000' below.

In addition to the aircraft types detailed in paragraph 22, the following were reported as sighted but not attacking:

- 3 BETTYS
- 5 RUFES
- 1 JANICE
- 1 Unidentified S/E airplane with square tips on wing and horizontal stabilizer. Said to resemble the Ju-87 very much.

23. TYPE AND ACCURACY OF ENEMY FIRE AND TYPE PROJECTILE:

7.7-mm and 12.7-mm machine gun fire, as well as 20-mm cannon fire was identified. This was reported to be inaccurate, and comparatively few hits were scored on any parts of the B-29s. Attacks were of varying degrees of aggressiveness with breakoffs ranging from 500 yards to 100 feet. The twin-engine fighters were reported in many instances to be more aggressive than the single-engine aircraft.

24. ENEMY AIRCRAFT MARKINGS:

A great variety of enemy aircraft markings were observed, among which were several German crosses, pointing up the fact that German-type aircraft had been used, as indicated in paragraphs 22 and 22-A.

The majority of the enemy aircraft were painted in dark colors, such as olive drab, and had red roundels. Examples of other colorings are:

S E C R E T

SECRET

Combat Data (contd)

25. (contd)

- a. Entirely black or dark brown, such as might be used on night fighters.
- b. Black with yellow band around fuselage.
- c. Multicolored camouflage.
- d. Olive drab with orange or red cowlings.
- e. Olive drab with white wing tips.
- f. Olive drab with rising sun.
- g. Silver with bright green cowlings and red rising sun.

25. ENEMY TACTICS:

No standard plan of attack was evidenced. The majority of attacks were executed by individual fighters, while several other fighters flew alongside the formation out of range. Coordination of attacks occurred on only two or three occasions.

There were approximately 100 passes started where attacks did not materialize. Pursuit curves were initiated but not completed in several cases, apparently because the speed differential was not correctly estimated.

Almost all of the breakaways were low and to the right or left. There were some Split S's and slow rolls under the wings of the B-29.

One aircraft of the 5th Combat Group could not release its bombs mechanically nor close its bomb-bay doors, so it almost immediately became a straggler after leaving the target. The fighters quickly centered attention on this airplane, subjecting it to 15 separate attacks and then followed it for more than 100 miles out to sea.

26. ENEMY FORMATIONS:

Only in two instances were enemy formations reported. One consisted of five IRVINGs in a "V" formation which broke up and attacked singly. The other case was where a few TONYs attacked in pairs.

27. OUR TACTICS AND FIREPOWER VERSUS ENEMY A/C:

The B-29s countered enemy aircraft by holding formations and opening fire at ranges out to 1,000 yards.

28. RESULTS OF HITS ON E/A:

Hits on enemy aircraft were broken down into the following categories:

a. Smoking (out of control)

6 TONYs	3 ZEKES
4 NICKs	1 IRVING
2 TOJOs	

SECRET

20

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

24608
24603
24614

T.G.
Nose Gunner
Nose Gunner
SECRET

TONY
TONY
IRVING

Combat Data (contd)

28. (contd)

b. Flaming (out of control)

3 TOJOs 2 TONYs
2 ZEKES

c. Exploded

2 TONYs 1 IRVING

d. Cowlings blown off

1 TONY

e. Wing-tip shot off

1 TONY

28-A. CLAIMS BY A/C AND BY GUN POSITION:

Destroyed

<u>A/C #</u>	<u>Gun Positions</u>	<u>Type E/A</u>
42-24616	T.G. and L.G.	TONY
24605	Ring-sight Gunner	ZEKE
24608	T.G.	TONY
24603	Nose Gunner	TONY
24614	Nose Gunner	IRVING
63428	Ring-sight Gunner	TONY
{ 24616 (duplicate claim)	TC and R/S Gunner	{ TOJO
{ 63423	" " "	"

Probably Destroyed

42-24544	R/S Gunner	TONY
24654	T.G.	TOJO
24654	R/S Gunner	TOJO
24609	Nose Gunner	ZEKE
63432	T.G.	ZEKE
24608	R/S Gunner	TOJO
24614	T.G.	ZEKE
24605	T.G.	ZEKE
24603	Nose Gunner	TONY
63431	L.W.G.	TOJO
63426	R/S Gunner	TOJO
24626	R/S Gunner	TONY
24626	T.G.	TONY
63425	R/S Gunner	TOJO
24753	R/S Gunner	TONY
65231	L.W.G.	TONY
65231	T.G.	TONY
63435	R.G.	ZEKE

SECRET

SECRET

Combat Data (contd)

28-A (contd)

Damaged

A/C # 42-24623
63423
24604
63426
24643
24659
24693
24693

R/S Gunner
R.W.G.
R.W.G.
R/S Gunner
Nose Gunner
Nose Gunner
T.G.
L.W.G.

(2) TONY
NICK
NICK
TONY 8
IRVING
NICK
TONY
IRVING

SECRET

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

S E C R E T

Headquarters
73rd Bombardment Wing

Field Order 21
Mission No. 7
24 November 1944

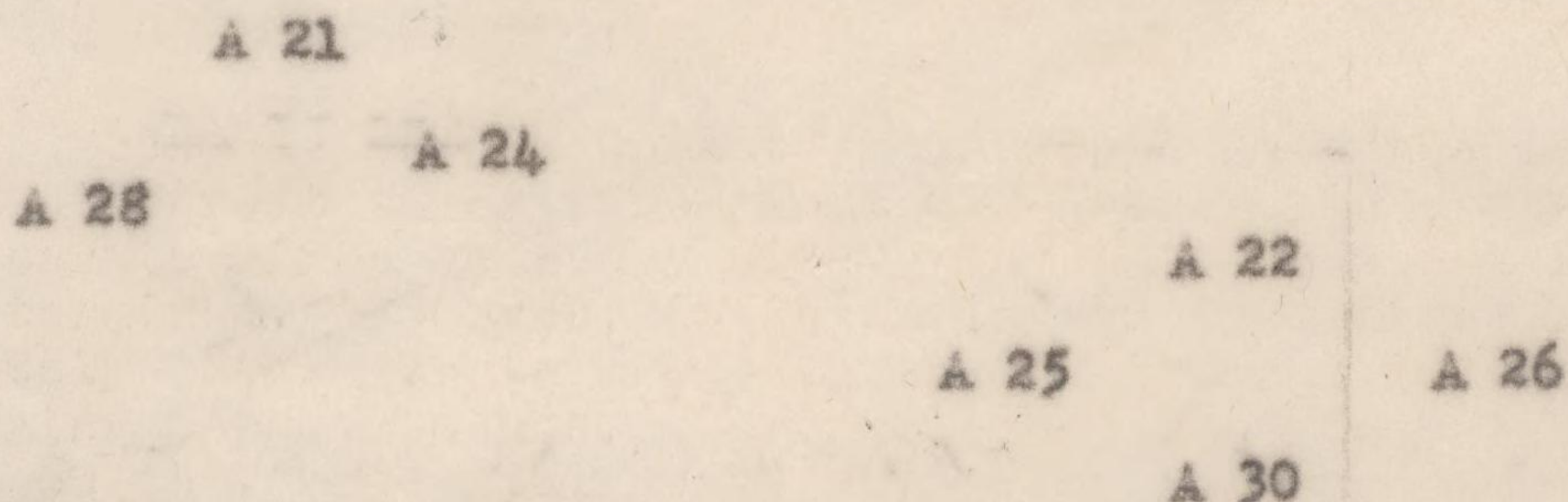
CONSOLIDATED MISSION REPORT
OBSERVATIONS AND CREW COMMENTS

29. EXPENDITURE OF AMMUNITION

See Table XI, Ammunition Consumption Data, Consolidated Statistical Summary.

30. OUR OBSERVED LOSSES BY E/A:

A/C A-26(4622) collided with an E/A at about 240345Z, 50 miles from target on route home. A/C's place in formation was as follows:



TONY had been fired on by A/Cs A-22 and A-25. It was believed to be out of control and was smoking before it hit A/C 26. It hit and carried away A/C 26's right stabilizer, and both planes dropped directly into the sea. No chutes were seen. A/C A-26 did not float.

31. OUR OBSERVED LOSSES BY AA:

None.

32. OBSERVATIONS:

- a. One SS and 1 DD in a harbor at Anatolian Islands; 240600Z; A/C at 1000'.
- b. Sea marker; 240820Z; 16°27'N, 144°30'E; A/C was at 150'.
- c. Two Radar installations at 34°49'N, 138°46'E and 35°00'30", 138°46'00"E (isolated portions of coastline of Yenouru Harbor) at 240315Z. The whole installation was camouflaged and consisted of two high poles (about 15') with a number of cross bars, about 4 or 5. These were set on a raised platform, about 40' square and 12'6" high. No other buildings nearby.
- d. Sixteen S/E A/C on a fighter strip due E of Tokyo right on the E coast -- 240320Z.
- e. Twelve to seventeen S/E fighters on a fighter strip just N of Tyosti -- 240322Z.

S E C R E T

SECRET

Observations and Crew Comments (contd)

32. (contd)

f. Fighter strip and dispersal area in a thickly wooded section on Nii Jima -- 240513Z.

g. Large radar installation at 22°50'N, 144°58'E (Uracas Island) -- 240738Z.

h. A/C A-41 (42-63425) was picked up by a searchlight and fired upon at 17°31'N, 145°10'E -- 241000Z.

i. Fire and smoke seen through clouds at 25°20'N, 144°54'E -- 240741Z.

j. Three AK, Saganu Bay, 240513Z.

k. One BB or large CA, and 6 AK in Tokyo Harbor, 240320Z. A/C at 20,000'.

l. One CV and 2 DE seen off coast of Japan, fish-tailing at an estimated speed of 18 knots -- A/C at 30,000'.

m. Jap range station, frequency 405 kcs, bearing 30° from course at 240250Z.

n. For details on observed airborne aircraft not attacking see Paragraph No. 22-A.

33. COMMENTS ON MAPS, CHARTS, AND PHOTOS USED:

a. Could use more photos of coastal area of Japan and of the Initial Point.

b. Maps not sufficiently detailed to show targets of opportunity easily and quickly.

c. Some navigators expressed preference for the 30-series charts of this area.

34. CREW SUGGESTIONS:

a. Serious consideration should be given to the prevention of window frosting.

SECRET

24

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

SECRET

Headquarters
73rd Bombardment Wing

Mission No. 7
Field Order No. 21
24 November 1944

CONSOLIDATED MISSION REPORT

GENERAL TECHNICAL DATA

35. FUNCTIONING OF OXYGEN SYSTEM:

A/C T-48 (42-65211) did not pressurize because of cracked blister. Developed leaks in 3 regulators after using about 3 hours. Returned to home base at 17,000'; the pilot and co-pilot used remaining oxygen, and the rest of the crew remained quiet until a safer altitude was reached.

36. FUNCTIONING OF CLOTHING AND PERSONAL EQUIPMENT:

a. T-2 (42-24605) had hole shot in nose. Crew complained of being cold wearing intermediate flying clothing. No one was frost bitten.

b. CFC gunner should have a closer fitting flak helmet; gunners find it impossible to wear present helmet in ring position.

37. CAMERAS:

a. In 497th Bomb Group, 9 A/C were equipped with cameras. Two of these cameras developed malfunctions.

b. 498th Bomb Group carried 8 cameras, 2 type K-18 and 6 type K-22. The camera doors on one of the latter did not open. Another of the K-22 cameras took only one exposure because it did not operate long enough.

c. Undercast prevented good results in most cases.

38. TECHNICAL FAILURES:

See Flight Engineer's Report.

SECRET

25

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

SECRET

Headquarters
73rd Bombardment Wing

Field Order No. 21
Mission No. 7
24 November 1944

CONSOLIDATED MISSION REPORT

BOMBING DATA

39. BOMB DATA:

Wing Totals

No. HE bombs loaded	777	
Tonnage	194½	
Fuse	AN-M103	nose
	M101A2	tail
No. IB bombs loaded	333	
Tonnage	83½	
Fuse	AN-M103	nose
	M101A2	tail
No. HE bombs dropped	605	
No. IB bombs dropped	255	
No. bombs jettisoned	230	
No. bombs brought back	20	

40. TARGET ATTACK DATA:

No. A/C over target	88
Mean Time	240427Z
Mean Altitude	29,310'
Mean Heading	67°
IAS	195
Mean Wind Velocity	120 knots
Mean Wind Direction	256°
Bomb Spacing	150
Mean Length of Bomb Run in Time	4.2 minutes
No. Sighting for Range	0
No. Sighting for Deflection	9
No. Making Manual Release	75
No. C. I. Release	13
How Toggled	DOL

41. CONDITIONS OVER TARGET:

There was patchy stratus undercast layer 12,000' above primary target. This cleared temporarily and the 1st Combat Group had a good visual bomb run. All succeeding Combat Groups found primary target completely overcast. There were broken clouds over the secondary target; visibility was fair.

Antiaircraft was meager over primary target and generally inaccurate. AA was moderate and accurate over secondary target. The only type camouflage used in the primary target area was some mottled painting.

Enemy aircraft opposition was moderate over primary target and meager over secondary target.

SECRET

S E C R E T

Bombing Data (contd)

42. I. P. AND A. P. :

The I. P. for this mission was without exception considered very good. A. P. was reported as generally satisfactory. One of the Groups reported having trouble making turn at I. P.

43. REASONS FOR FAILURE TO BOMB:

Reasons for failure to bomb target are as follows:

- a. Aborts
- b. Rack malfunctions
- c. Release mechanism failures.

44. RESULTS OF BOMBING OBSERVED:

Two Squadrons report results of bombing good to excellent. One squadron reported their bombs struck approximately 4,000 feet to right of target. Remaining Squadrons were unable to observe results of bombing due to undercast.

45. POSSIBLE SOURCES OF ERROR IN BOMBING:

- a. Broken clouds at target.
- b. Failure to follow briefed axis of attack resulting in erroneous pre-set bombsight information.
- c. Formation not compact enough for good bomb pattern.
- d. Use of aircraft for lead that do not have modified C-1 autopilots (aileron modification).

46. USE OF RADAR AND EFFICIENCY:

Reports on use of radar and its efficiency vary from very good to poor. Some Groups used it as a navigational aid.

47. COMMENTS AND SUGGESTIONS:

A more compact bomb pattern would result from a correspondingly compact formation over the target, and the bombing problem simplified by not departing from the briefed route into the target.

Use of aircraft having the C-1 autopilot aileron modification is suggested.

S E C R E T

SECRET

Headquarters
73rd Bombardment Wing

Mission No. 7
Field Order No. 21
24 November 1944

CONSOLIDATED MISSION REPORT

BOMB IMPACT DATA

Paragraphs 48 - 51.

DAMAGE ASSESSMENT

No. A/C over target: 24 (over primary target)

Bomb Load: 7 x 500-lb GP; 3 x 500-lb M76 IB.

Direction of Attack: Varied from 39° to 83°.

Aiming Point: Center of the large assembly plant in western half of the target area.

Photographic Coverage and quality: Only five photographs showed bomb strikes and bomb damage in the target area. Photographs show the mercantile area, a part of the dock area, and the NE area of Tokyo. Quality varies from excellent to poor, with a large amount of cloud cover.

SUMMARY

Approximately 44 bursts are observed, of which 16 are in the target area. It appears that the lead Squadron had 5 bursts on the target. The remainder were in the barracks-warehouse area just to the northwest of the target, hitting one large building 2000 feet from AP. 18 bursts can be seen hitting among the small barracks just north of the target approximately 1700 feet from AP.

The 2nd Squadron evidently had 11 bursts in the target area, 2 of these hit the large building located in the NE section in which crankcases and gears are made. 1 hit is observed in the small-parts plant at the NE edge of the central power plant. 1 hit is observed in the small building in the eastern part of the area. In the impellers section of the L-shaped building, SW of power plant, 1 burst can be seen. 1 burst can be seen in the building at the SE edge of the power plant. A large building on western edge of target was partially destroyed and another damaged by 2 direct hits and a near miss. The adjacent warehouse had 2 direct hits. A group of 3 bursts can be seen 3000 feet N of the AP. Approximately 6 bomb bursts can be seen in Tokyo Bay, 800 feet east of Shibaura Wharf.

CONCLUSION

Since 7% of the total bombs dropped were observed in the target area, the bombing results were unsatisfactory. No attempt was made to determine bombing results on secondary target due to poor quality of photographs.

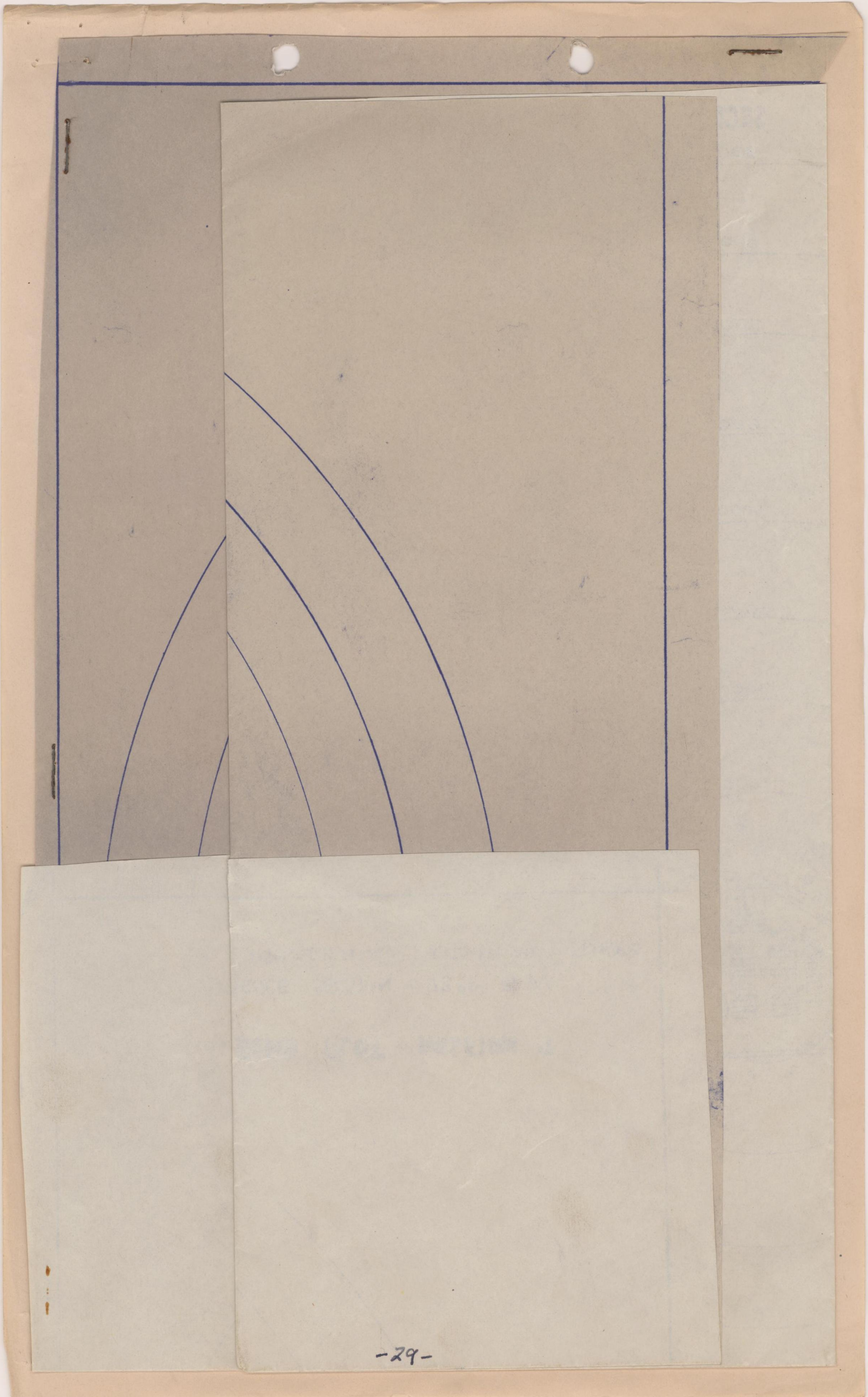
SECRET

28

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05



-29-

SECRET

9000 FT.

8000 FT.

7000 FT.

6000 FT.

5000 FT.

4000 FT.

3000 FT.

2000 FT.

1000 FT.



DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

SECRET

9000 FT.

8000 FT.

7000 FT.

6000 FT.

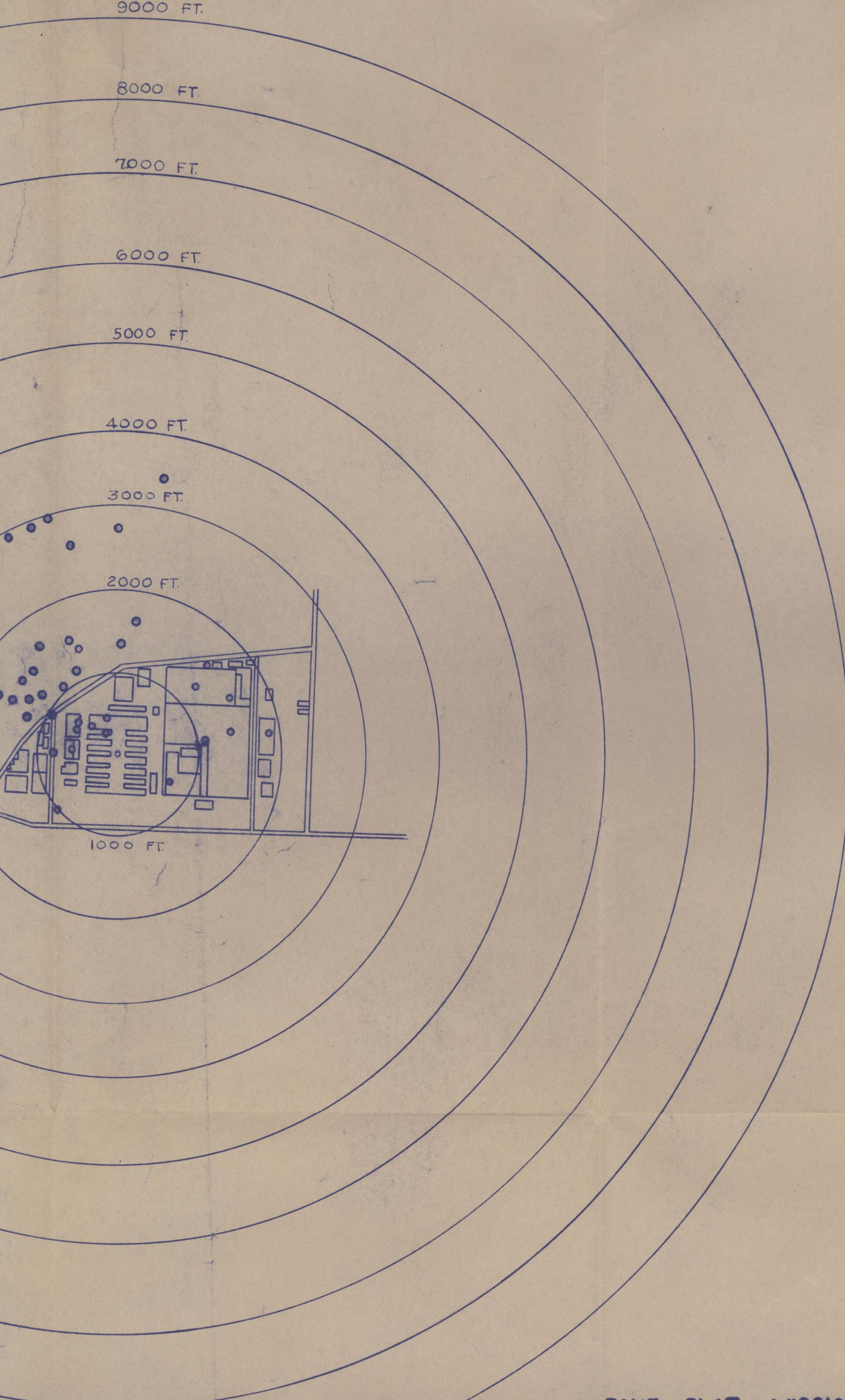
5000 FT.

4000 FT.

3000 FT.

2000 FT.

1000 FT.

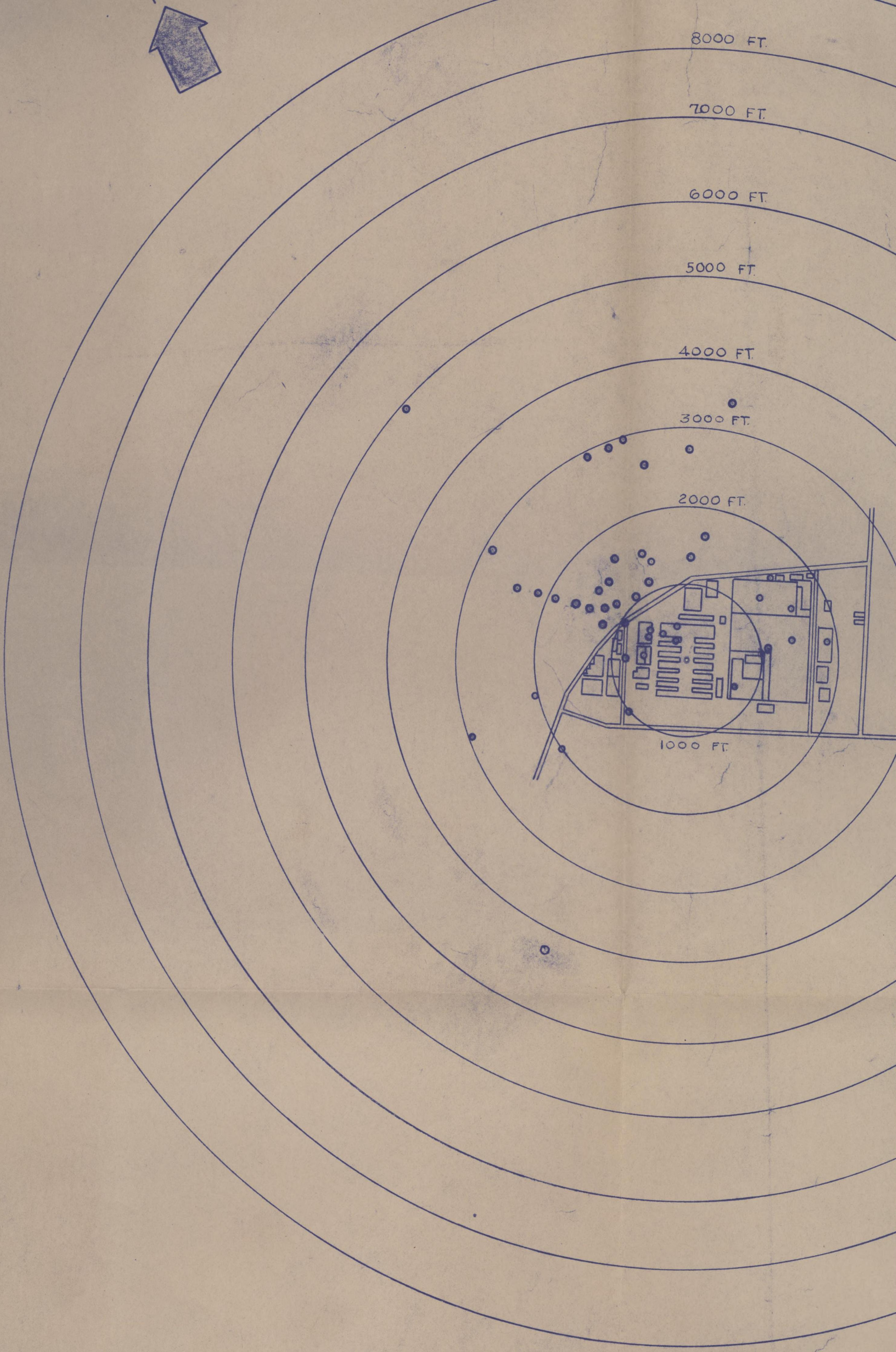


BOMB PLOT - MISSION 7

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05



SECRET

DECLASSIFIED
Authority UND760063
By PT NARA Date 8/26/05



BOMB PLOT - MISSION 7

TARGET INTELLIGENCE SECTION - 73RD B.W.
25 NOV. 1944 - MUSASHINO AC PLANT-TOKYO

SECRET

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05



(15PL 869BS4598A04M7)

EASTMAN 9005 EASTMAN 9006 EASTMAN REGULAR SAFETY

SECRET

DECLASSIFIED
Authority UND760063
By PT NARA Date 8/26/05

(15PL869BS4598AG4M7)(3VI)(11'24.1211)(24'30000)35°45'N 139°35'E (MUSASHINO AC PLANT, TOKYO) CONFIDENTIAL



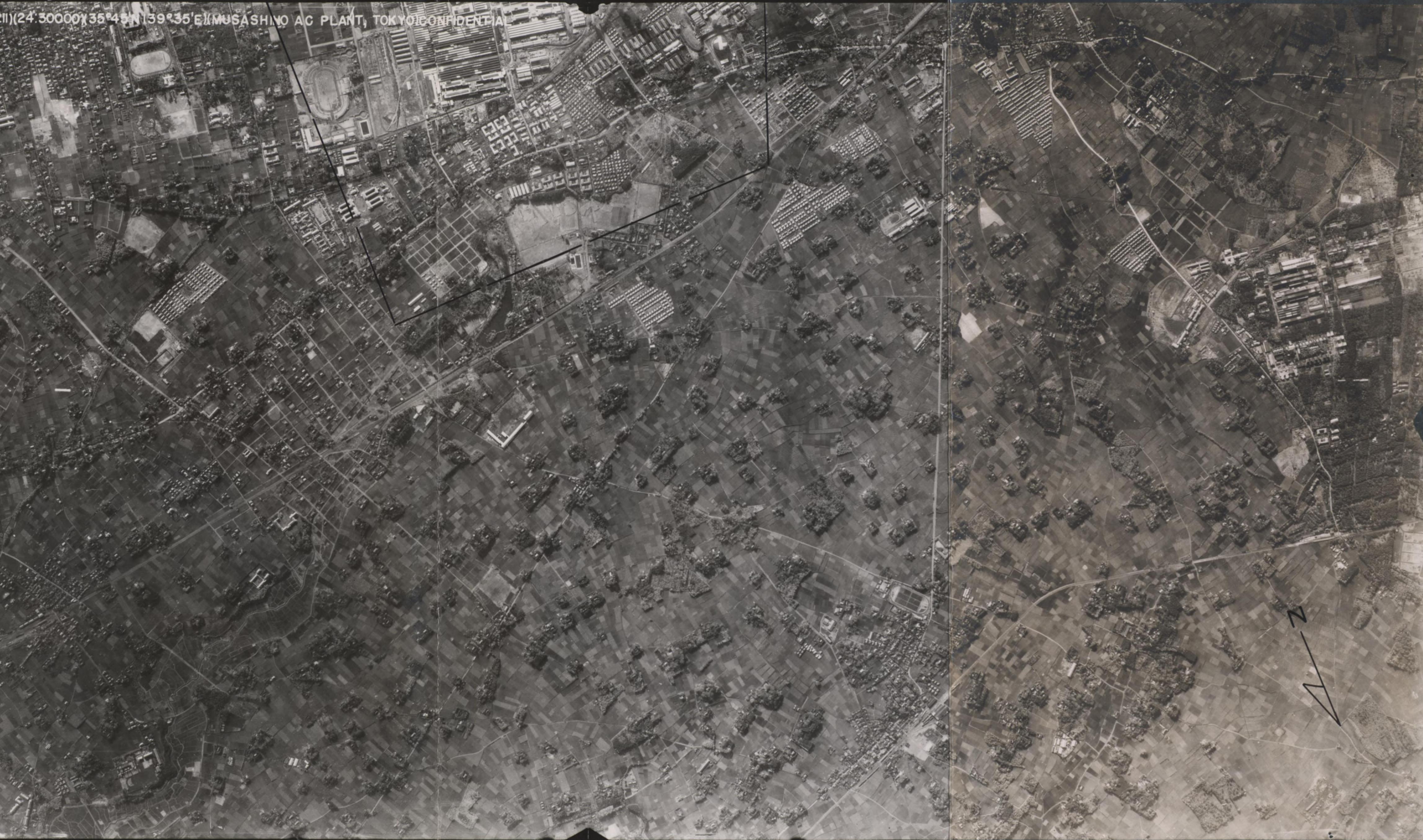
9066 EASTMAN REGULAR SAFETY

9067 EASTMAN REGULAR SAFETY

9065 EASTMAN REGULAR SAFETY

DECLASSIFIED
Authority *UND760063*
By *AI* NARA Date *8/26/05*

II)(24 30000 35 45 N 139 35 E) MUSASHINO AC PLANT, TOKYO CONFIDENTIAL



9067 EASTMAN REGULAR SAFETY

9065 EASTMAN REGULAR SAFETY

SECRET

- 30 -

DECLASSIFIED
Authority *UND 76006 3*
By *AI* NARA Date *8/26/05*



(SPL 87 OBS 467 AC 4M X 4 Y 8) (124 1225) (24 2 500) (35°45'N 139°35'E) (MUSASHINO AG PLANT, NO. 357, TOKYO)

CONFIDENTIAL



(SPL 87 OBS 467 AC 4M X 4 Y 8) (124 1225) (24 2 500) (35°45'N 139°35'E) (MUSASHINO AG PLANT, NO. 357, TOKYO)

CONFIDENTIAL

6958 EASTMAN REGULAR SAFETY

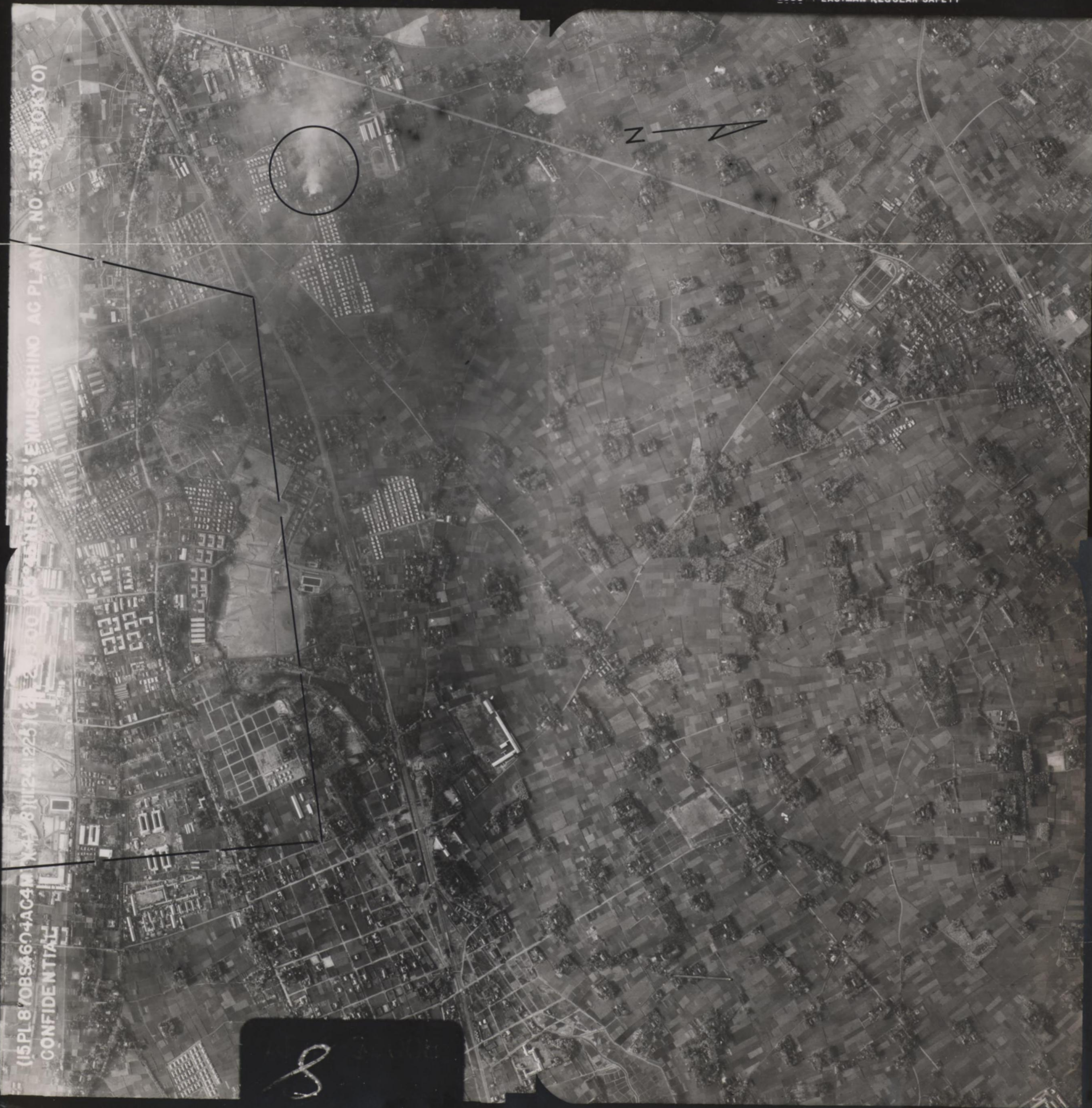
6958 EASTMAN REGULAR SAFETY



SA 604403M 514 V4 (124 1225) (24 2300) (35°45'N 139°35' E) XMUSASHINO AC PLANT, NO. 357, TOKYO

CONFIDENTIAL

ETY



(15PL 870BS4604AC4M X44 8) (124 1225) (24 2300) (35°45'N 139°35' E) XMUSASHINO AC PLANT, NO. 357, TOKYO

CONFIDENTIAL

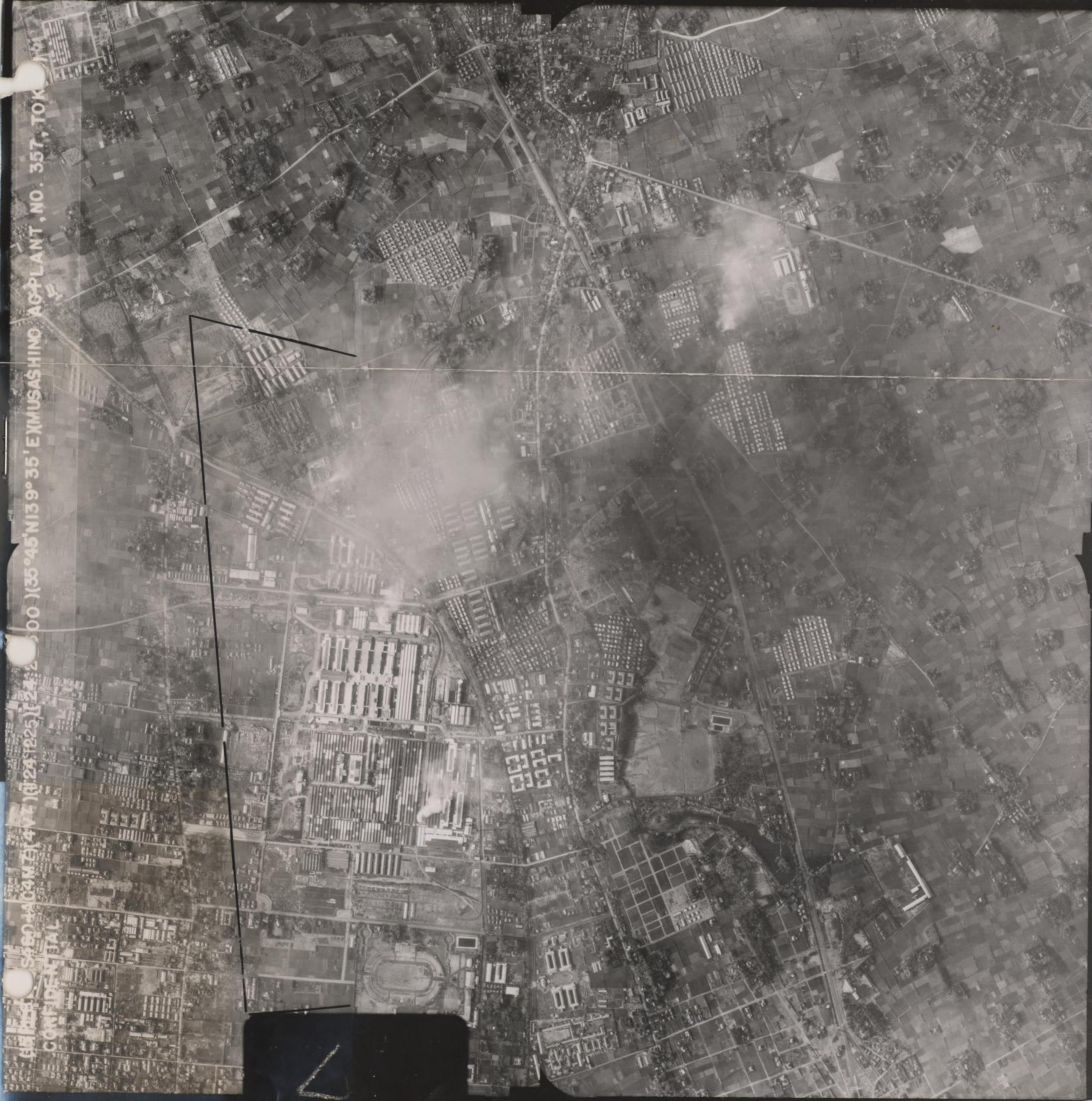
8

-31-0EUNEI

REGULAR SAFETY

0556 EASTMAN REGULAR SAFETY

0557 EASTMAN REGULAR SAFETY



5180-44 03M EX 474 (1) 24 1225 (2) 24 2300 (35°45'N 139°35' E) MUSASHINO AC PLANT, NO. 357, TOKYO, JAPAN
 CONFIDENTIAL

- 31 - 050921

DECLASSIFIED
 Authority *UND 760063*
 By *AF* NARA Date *8/26/05*

(15PL871BS3426AC4M7)(5 V 3)(11:24:1415)(40:28180)(35°45'N139°35'E)(MUSASHINO AG PLANT, TOKYO)

CONFIDENTIAL



1966 EASTMAN REGULAR SAFETY

1967 EASTMAN REGULAR SAFETY

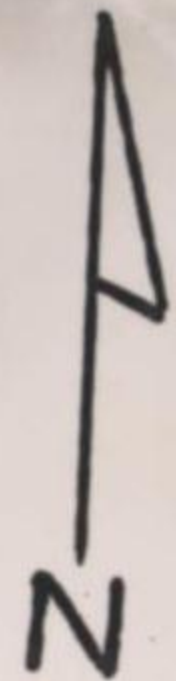
- 32 - SECRET

DECLASSIFIED

Authority *UND760063*

By *AI* NARA Date *8/26/05*

(18PL88IBS4662A/C4M2)(IV1)(11:24:1340)(24,28,800)(35'39'N 139'46'E)
(SHIBAURA PLANT - 327 - TOKYO)(CONF.)



S E C R E T

73RD BOMB WING

2 DECEMBER 1944

MISSION NO. 7

FIELD ORDER NO. 21

NAVIGATION NARRATIVE

1. The course to and from the target was flown generally as briefed. The initial point could be seen for more than a hundred miles and is an excellent check point both visually and by radar.
2. The opinion of navigators indicates that they preferred the route chosen, as it has additional check points (Kazan group) to relocate themselves if they are blown off course.
3. The A.P.I. and flux gate compass are giving considerable trouble, maintenance personnel are needed.
4. Navigation was generally good for the entire route.

ROLLIN C. REINECK,
Major, Air Corps,
Wing Navigator.

S E C R E T

34

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

S E C R E T

Headquarters
73rd Bombardment Wing

Mission No. 7
Field Order No. 21
24 November 1944

CONSOLIDATED MISSION REPORT

BOMBARDIER

See paragraphs 41 through 47.

SECRET

35

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

HEADQUARTERS 73rd BOMBARDMENT WING

CONSOLIDATED MISSION REPORT

29 Nov 1944
JGH .

PO 21
Mission # 7
15 Nov 1944

WEATHER SUMMARY.

A small typhoon, giving very bad flying conditions on the first 500 miles of the route, had been moving slowly in the area just to north of Saipan. The past positions are shown on the prognostic chart for the 24th Nov 44 (Pg 2). Weather recon flights on the 22nd and the 23rd showed a decided movement to the northeast with rapidly improving route conditions to the west so that the 24th was the first day of reasonably good route conditions for a formation. The route to the target was considerably to the west of the return route thus taking the best advantage of the winds.

The target weather was influenced by the frontal system shown along the northwestern coast of Japan and to a lesser extent by the weak cold front to the southeast. Six tenths Ac with tops at 17000 feet with a few low cumulus were forecast.

The observed cloud cover at the target did not entirely agree with that forecast. Considerable cirrus cloud was encountered at flight level (29000ft) which some crews reported as interfering with a visual bomb run on the target. Some of the flights overcame this difficulty by bombing at a slightly lower altitude than that assigned. Since the first flights over the target did not report any cirrus cloud it appears that this moved in after they left (a spread of two hours and fifteen minutes over the target) or that faint vapor trails condensed enough from the preceding flights to form these clouds. Due to the high wind velocity at this altitude the first assumption seems most plausible. Since visual bombing had to be done thru holes in the Altocumulus layer some of the flights bombed the secondary target visually and others by radar. The rest of the forecast agreed with that observed very well. The winds in the northern portion of the route were reported as slightly weaker than forecast. No reliable checks were obtained on the pressure altitude forecast issued to the bombardier.

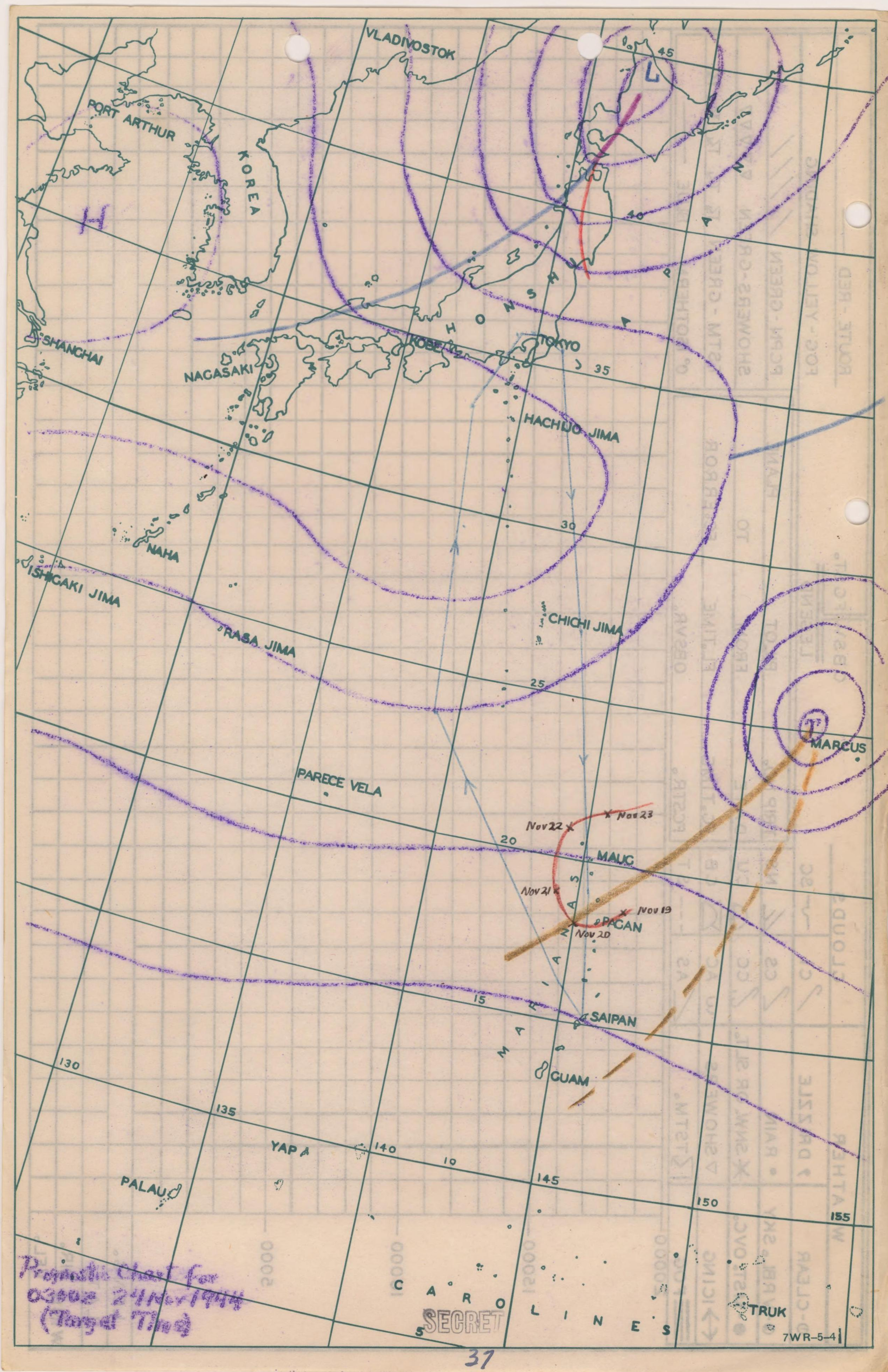
SECRET

36

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05



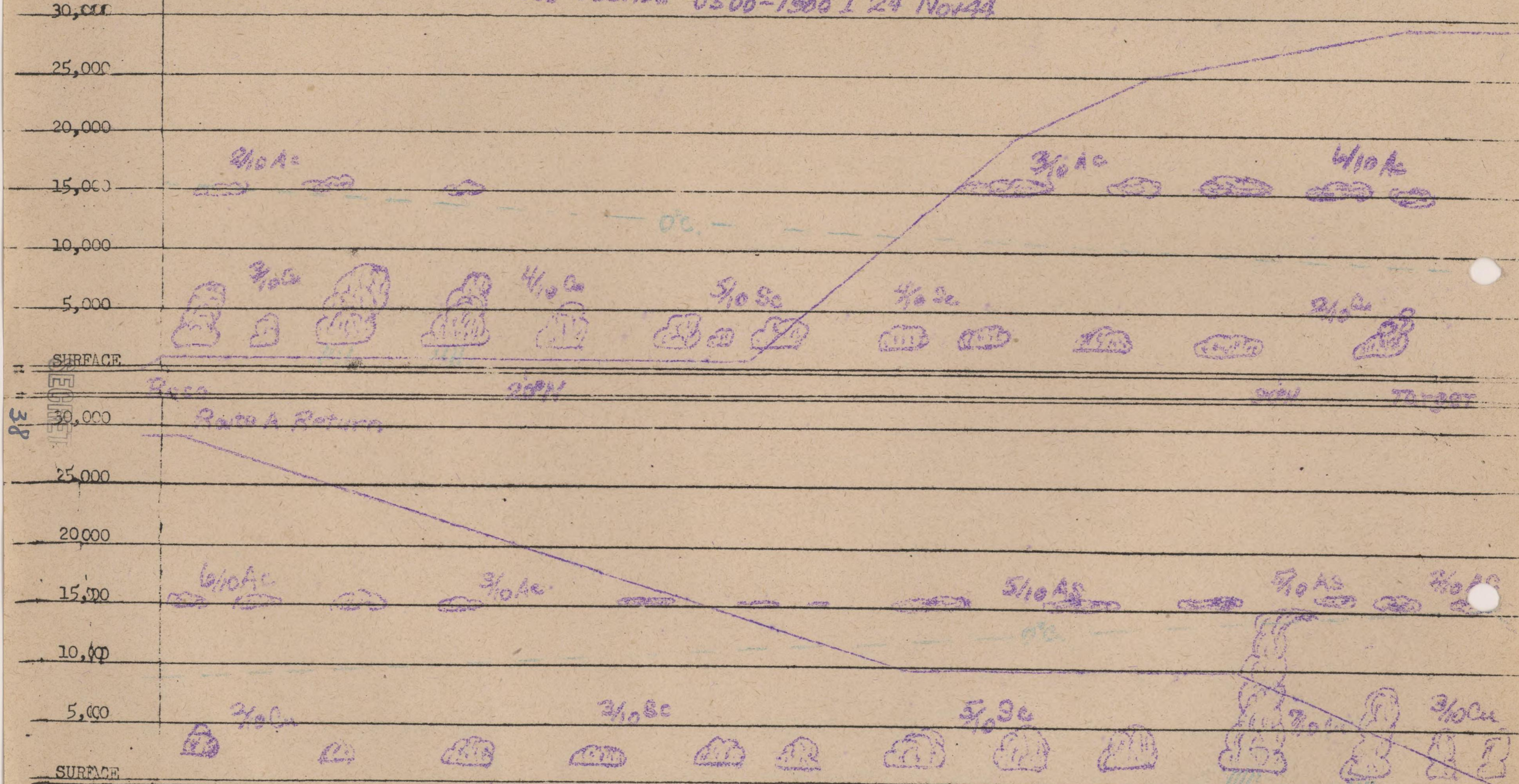
Projective Chart for
0300Z 24 Nov 1944
(Target Time)

SECRET

7WR-5-4

Route A (outgoing)

Forecast Cross Section 0500-1900 I 24 Nov 44



ADDITIONAL TARGET DATA: Altimeter Setting: 2994 in. ; Mean Temperature from Surface to 29,000 feet: -14 ° C.

OPERATIONAL WEATHER FORECAST

Org Issued to _____ Time & Date Issued 233030 Time & Date Fcst Period 210500 to 041900 F.O. # 81 Route ADUTCOMG CAL

		ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5	ZONE 6
A	INTERVAL	BASE TO 18°N	18°N-25°N	25°N-33°N	33°N TO TARGET AND TARGET		
B	WEATHER	PARTLY CLOUDY	PARTLY CLOUDY	PARTLY CLOUDY	CLOUDY		
C	CLOUDS Amt, Type, Ht	7/10 Cu 15000 7/10 Cu 7000 1200	7/10 Cu 1500 AT 18°N INCREASING 7/10 Sc 5000 AT 25°N	4/10 Sc 4000 2000	7/10 Sc 15000 INCREASING TO 4/10 OVER TARGET 7/10 Cu 5000 2000		
D	ALTIMETERS	29.15"			29.97"		
E	VISIBILITY	30 MILES	30 MILES	30 MILES	10 MI OVER TARGET		
F	CONTRAILS	NIL	NIL	NIL	FRONT-NOW PERSISTENT		
G	TURBULENCE	SLIGHT	SLIGHT	NIL	NIL		
H	FR'ZG LEVEL	10,500	10,500	10,500	8500		
I	ICING	NIL	NIL	NIL	NIL		
J	INTERVAL	27° TO 27°N	27° TO 27°	27° TO 32°	32° TO TARGET		
K	WIND & TEMP	DIR. VEL. T.(°C)	DIR. VEL. T.(°C)	DIR. VEL. T.(°C)	DIR. VEL. T.(°C)	DIR. VEL. T.(°C)	DIR. VEL. T.
K	SURFACE	50 77	40 15K	15° 20K	35° 15K		
L	2,000	45 25K 28	35 10				
M	5,000	40 25 17	30 15				
N	10,000		270 50 4	280 40 1	270 40 -2		
O	15,000		270 50 -4	260 60 -7	260 60 -10		
P	20,000		250 70 -13	250 75 -16	240 85 -19		
Q	25,000			250 95 -26	250 105 -30		
R	30,000			260 110 -34	250 125 -43		
	35,000			250 125 -50	250 140 -59		

SECRET

OPERATIONAL WEATHER FORECAST

Org Issued to _____ Time & Date Issued 232230 Time & Date Fcst Period 240500 to 241900 F.O. # 21 A(Return Orig) Route _____

		ZONE 1		ZONE 2		ZONE 3		ZONE 4		ZONE 5		ZONE 6		
A	INTERVAL	Base - 17°N		17°N - 19°N		19°N - 28°N		28°N - 32°N		32°N - Target and Target				
B	WEATHER	Partly Cloudy		Scattered Moderate Showers		Cloudy		Partly Cloudy		Cloudy				
C	CLOUDS Amt, Type, Ht	2/10AC	<u>15,500</u> 15,000 <u>7,000</u> 1,800	4/10CS	30,000 <u>17,000</u> 15,000 <u>2,000</u> 1,800 <u>16,000</u> 1,400	5/10AS	30,000 <u>17,000</u> 15,000 <u>6,000</u> 1,800	5/10AS	30,000 <u>17,000</u> 15,000 <u>6,000</u> 1,800	3/10SC	<u>5,000</u> 2,000	2/10Cu	<u>5,000</u> 2,500 <u>17,000</u> 15,000	increasing to 6/10 over target
D	ALTIMETERS	29.82"								29.94"				
E	VISIBILITY	20 miles		Less than 2 in shrs		20 miles		20 miles		12 miles over target				
F	CONTRAILS	None		None		None		None		None		Faint-Nonpersistent		
G	TURBULENCE	None		Slight-Moderate		None		None		None				
H	FR'ZG LEVEL	15,500		15,500		15,500		10,500		8,500				
I	ICING	None		None		None		None		None				
J	INTERVAL	Base-20°N		20°N-24°N	24°N to 29°N		29°N to 32.5°N		32.5°N to target		Target			
	WIND & TEMP	DIR. VEL. T.(°C)		DIR. VEL. T.(°C)		DIR. VEL. T.(°C)		DIR. VEL. T.(°C)		DIR. VEL. T.(°C)		DIR. VEL. T.(°C)		
K	SURFACE	80°	11K	10°	20K	350°	15K	260°	12K	260°	12K			
L	2,000	30	28K											
M	5,000	25	28K											
N	10,000	10	25K	340°	25K	310	35	4	290	40	280	40	-2	
O	15,000			280	50	-4	270	60	260	60	-10	260	60	-10
P	20,000			260	70	-13	250	85	240	85	-19	240	85	-19
Q	25,000						250	95	250	105	-30	250	105	-30
R	30,000						260	110	250	125	-43	250	125	-43
S	35,000						260	125	250	140	-54	250	140	-54

BOMBARDIERS FORECAST FO# 21 35

TARGET TIME 240300Z

WINDS & TEMPS:

ALT	DIR	VEL	TEMP
25000	250	121 mph	-30°C
27000	250	131 mph	-35°C
30000	250	144 mph	-43°C

MEAN TEMP, Surface to:

27000: -11°C

30000: -15°C

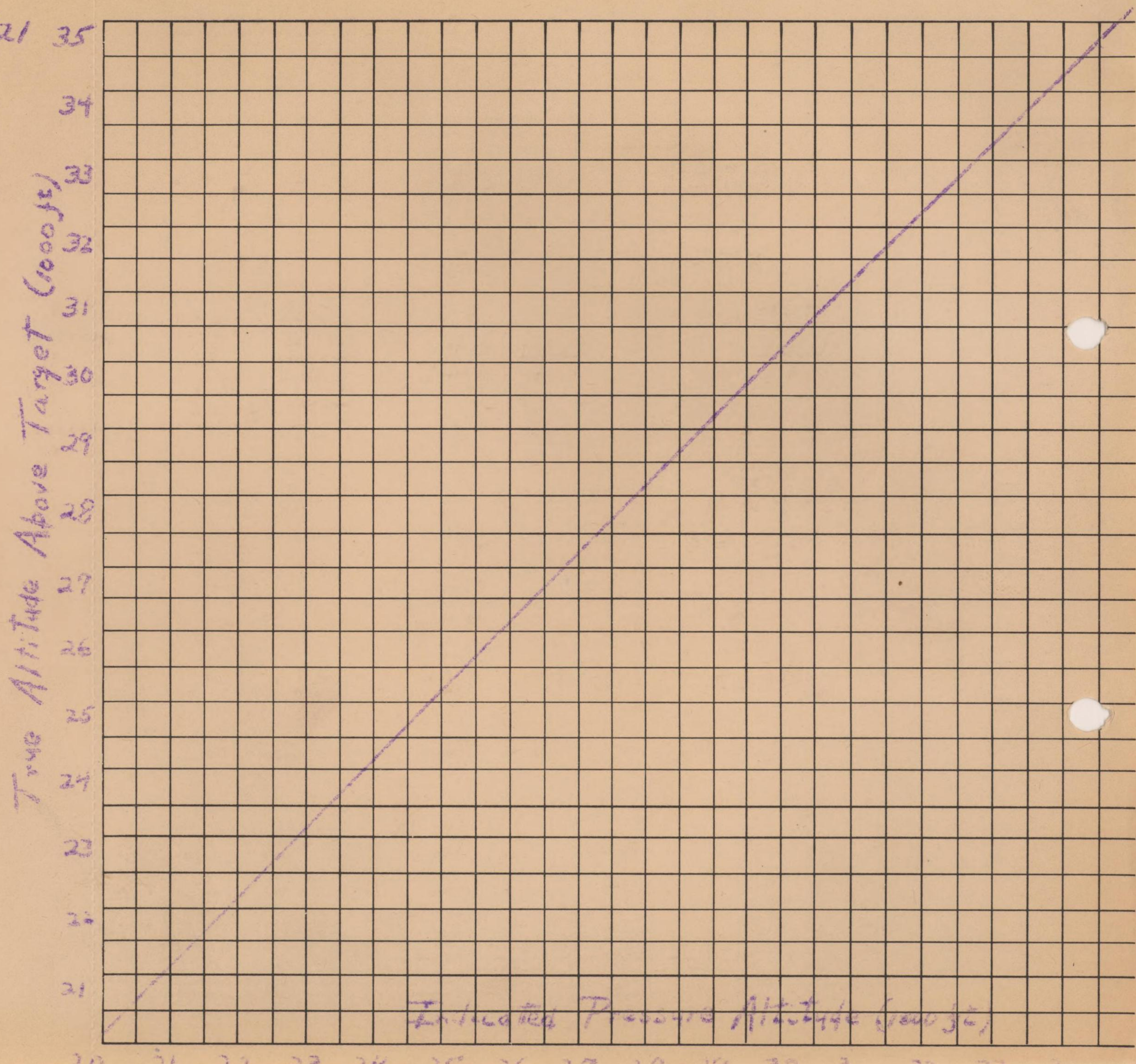
42

ALL ALTITUDES ARE INDICATED

PRESSURE ALTITUDES

PRESSURE ALTITUDE OF TARGET

+ 133 ft.



SECRET

CFC GUNNERY

1. The operation of the gunnery equipment in general is as follows:

a. Cal .50 Machine Guns	96% operative
b. 20-mm Cannons	78% operative
c. CFC Systems (no. failures of entire system)	100% operative
d. CFC Turrets (individual)	97% operative
e. CFC Sights	99% operative
f. Secondary Control (where used)	100% operative
g. CFC Computers	99% operative

2. Total expenditure of ammunition is as follows:

a. Cal. 50 (all types)	160,471
b. 20-mm (all types)	3,156

3. Although it is appreciated that this mission represents one of the most extensive uses of the General Electric Company's Central Station Fire Control Equipment, this is the first combat use of this equipment by units of this command and therefore it is desired that no final conclusions be made. Of the 166 committed enemy attacks, more than 75% were against only two squadrons of the total of five combat groups. The observed results of equipment operation and gunners technique was very satisfactory. The following gunners and interrogators comments are presented:

- a. The 870th Bomb Squadron which bore the greatest number of E/A attacks requested permission to carry more ammunition (five hundred rounds cal .50 per gun and 125 rds 20-mm were carried on this mission). This squadron was under continuous attack for seventy-five minutes. It is believed that the mission circumstances make this request valid, however closer spacing of combat squadrons as is planned, should eliminate the necessity of additional ammunition.
- b. Lack of supervision of E-14 training has tended to make bursts too short in length and too close in spacing. E-14 training is to be continued in the theater by units of this command and stress will be placed on fire control as mentioned. It should be noted that this can be corrected in OTU training. This headquarters recommends bursts of twelve to fifteen rounds spaced a minimum of three seconds apart. Emphasis should be made that as E/A close on aircraft, bursts should be increased to approximately twenty to twenty-five rounds. Bursts as mentioned above are in rounds per gun.
- c. Although the 20-mm cannon has proved to be generally accurate and effective, units have requested its removal and replacement with cal .50 machine guns to increase the tail cone of fire. All gunners and units are in accord in belief that the tail mount cone of fire of thirty degrees is very inadequate. It is believed that wing men covering a six o'clock attack cannot effectively bring their guns on the E/A.
- d. This command is now directing that all gunners wear oxygen masks fixed to face with all connections made, about twelve thousand feet.
- e. It has been recommended that secondary control of upper forward turret be exercised by ring station gunner at all times, when not in use by the nose gunner. At present this seems desirable and further investigation will be made by this headquarters.
- f. It has been recommended that 20-mm charging cables be permanently installed in the tail turret. Further investigation is being made.
- g. A knee or foot switch is urgently required for 20-mm operation.

SECRET

43

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

S E C R E T

CFC GUNNERY (CONT)

- h. A thumb or forefinger microswitch installed on pedestal sights for interphone microphone operation is urgently needed. Request for necessary parts and action for field installation is being accomplished by this headquarters.
 - i. Many complaints were submitted on the Ring Gunners seat, this included non-adjustability of seat in elevation and binding of seat in rotation.
 - j. Parallax has been reported on some sights. This is being investigated because if true, this condition is serious as no corrections can be made in the field.
 - k. It is highly desired that first priority be given to procurement of automatic switch over control box (now in production) for blister stations. This unit is urgently needed by combat units and will greatly increase the efficiency of the blister stations in formation gunnery.
4. Investigation of weapon failure has indicated that approximately eighty per cent of Cal. 50 failures are due to personnel failure in maintenance of both the gun and charger. Of nine reported 20 mm failures, 6 are believed to have been caused by ammunition binding in cans. This can be corrected by loading a maximum of 110 rounds per gun.
5. Of the investigated turret failures, cause can be equally divided to normal wear of parts and faulty maintenance.
6. General evaluation of the mission indicates that all combat crew personnel gained confidence of the equipment and that equipment operation was satisfactory.

Prepared by

Dorfman

Wg Gunnery O

S E C R E T

-2- 44

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

FORM 73 BW
 Date 2 Dec 44
 BYWg Photo 0

CONFIDENTIAL
 CONSOLIDATED MISSION REPORT
 PHOTOGRAPHIC

F. O. No. 21
 Mission No. 7
 Date of Mission 24 Nov 1944

1.

	K-18	K-19	K-20	K-22	K-7C	K-24	Total
a. Cameras installed	0	0	6	21	9	3	39
b. Cameras in aborting A/C	0	0	0	4	2	1	7
c. Cameras in lost A/C	0	0	0	1	0	0	1
d. Camera in A/C not lost but not returning.	0	0	0	0	0	0	0
e. Cameras with malfunctions	0	0	0	0	0	0	0
f. Cameras in operating condition not taking photos	0	0	1	7	3	1	12
g. Camera taking photos	0	0	5	9	4	1	19

2. Breakdown of cameras taking photos by A/C Number:

A/C No.	Vertical camera				Number of photos taken					
	f. stop	shutter interval	altitude	K-18	K-19	K-20	K-22	K-7C	K-24	
4593	f11	1/150	7	28500			71			
4604	"	"	"	29300			38			
3426	"	"	"	28180			83	1		
4598	"	1/100	"	30000		6			1	
4615						2				
4595						11				
4591						15				
4592						5				
4614	f6.3	1/150	7	29000			26			
4625	f8.6	"	"	29000			12			
3428	f6.3	"	"	29000			13			
4610	"	"	"	29000			19			
4629	f.8	1/100	"	29000				35		
3416	f6.3	1/150	"	29000				15		
4653	f.8	"	"	31000			34		5	
5221	f.8	"	"	28800				16		
4662	f.8	"	"	28000			12			

CONFIDENTIAL

Incl 8

SECRET

45

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

3. Breakdown of cameras not taking photos by cause:

	Cause	No. of Cameras	Explanation
a.	Mechanical failure		
b.	Installation error		
c.	Processing error		
d.	Camera doors not open	1	Personnel failure
e.	M/Switch not on		
f.	Vacuum failure		
g.	Power failure		
h.	Light failure(Target)	7	Target undercast
i.	Enemy action		
j.	Others		
k.	Crew interference	1	Crewman tampered with cables
l.	Camera run-down	1	Film exposed over water
m.	not used	2	Crew failed to operate
n.			
o.	Total	12	

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:

la, b, c, d, are self explanatory.

le - The number of malfunctions due to installation or processing.

lf - 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.

lg. 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 _____
~~XXXXXXXXXX~~
Rank _____

Prepared by _____
Photo Lab Commander
Glenn F. Hellman
Rank _____

GLENN F. HELLMAN
1ST LT. AIR CORPS
WING PHOTO OFFICER

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

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

HEADQUARTERS 73RD BOMBARDMENT WING CONSOLIDATED MISSION REPORT

Field Order No. 21

COMMUNICATIONS

1. Strike Report: Initial strike reports over the target were picked up without difficulty. Amplified strike reports submitted one hour after leaving target were also received without difficulty. Messages were received for by the Ground Station.

2. Fox Messages: After bombs away, the Ground Station officially went on the air. Terminal weather messages were transmitted hourly on the half hour. Weather messages were successfully received by aircraft despite crowded traffic conditions.

3. Radio Frequencies: Radio communication surpassed expectations. Initial strike report was transmitted on 11160kes and was received S-5 by Ground Station. Frequency 7310 was received satisfactorily at practically all ranges but had considerable traffic from other station superimposed. Frequency 3145kes was most satisfactory up to a range of four hundred miles from base. It had very little traffic interference from outside stations at that range.

a. The Ground Station was received S-5 by certain aircraft over and close to the target. Other aircraft reported weaker signals indicating possible insensitivity of receiving equipment. Overall results indicated that transmitter BC 610 is sufficiently powerful for the job when using half-wave doublet antennae but that more powerful equipment would naturally give better results in so far as reading through background signals is concerned.

4. Navigational Aids: All aircraft made extensive use of radio navigational aids. Saipan homer and range station performed excellently. The Wing Ground Station had excessive requests for bearings and experienced extreme difficulty in handling the traffic, due chiefly to availability of only one D/F station. Many aircraft asked for bearing on an emergency basis whereas later investigation revealed no basis. Many bearings were requested simply as a check for the navigator. All traffic was eventually handled, however, and no aircraft suffered as a result of having to wait. AACB and 30th Bomb Group Ground Station handled some of the bearing requests.

5. Security and Net Discipline: As a whole, security was well maintained. Aircraft gave and requested authentication on almost all traffic. Net discipline was not all that could be desired on the later stages of the home leg, but the Ground Station performed remarkably well and handled the traffic as fast as possible.

6. Enemy Transmissions: A considerable amount of enemy interference and/or jamming was encountered. "Stepped Tone" type of jamming was reported on all strike frequencies being most consistent on 3145kes. The Ground Station received a

DECLASSIFIED

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

NND 740120

By CD/MT NARS, Date OCT 21 1975

SECRET

46

DECLASSIFIED

Authority NND760063

By PT NARA Date 8/26/05

HEADQUARTERS 73RD BOMBARDMENT WING CONSOLIDATED MISSION REPORT

message addressed "73BW" from an aircraft participating in the mission stating it was ditching and giving position in clear text. No authentication could be obtained; interrogation of radio operator of subject aircraft upon return revealed no such message had been sent. Considerable traffic interference existed close and over Japan as would normally be expected. Certain aircraft were requested to guard and take bearing on Japanese broadcast stations from 1100 to 1500kcs. Numerous stations were picked up and bearing taken. Results if considered reliable will be made available as navigational aids.

7. Malfunctions:

Set	Malfunction	497th	498th	499th	500th
AN/ARN-7	Sense antenna broken off in flight.	1			1
	Insensitive		1		
	Tuning crank frozen		1		
	Tuning cable broken			1	
	Antenna mast broken			1	
BC 348(M)	Receiver dial alignment off and noisy	1			
	Dynamotor blows fuzes		1		
RC 36	Loud interference all post.			1	
SCR 522	Set completely dead		1	2	
Mike					
Switches	Cutting out at tail and Ring Gunner position		1		
BC 347 (C)	Excessive heating	1			
	Intermittent short		1		
Trailing Antenna	Lose wire		1		
AN/ART 13	Set shorts after transmitting a few characters		1		
Marker Beacon	Light flashes continuously		1		

SECRET

47

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

S E C R E T

Consolidated Mission Report

RADAR

Mission 7 FO 21

RADAR EMPLOYMENT AND RADAR EQUIPMENT PERFORMANCE

1. RADAR EMPLOYMENT:

a. Six (6) Squadrons bombed by radar or made radar approaches to visual bombing. Results were unobserved, although in most cases observations of the radar scope indicated that good area bombing was performed.

b. Some difficulty was experienced in getting on the briefed axis of attack, due to high cross-wind at bombing altitude.

2. RADAR EQUIPMENT PERFORMANCE:

a. On the basis of the total A/C over the target area, 50% of the radar sets functioned satisfactorily for bombing purposes. Maintenance effort was concentrated on lead and deputy lead aircraft prior to the mission and failures in these aircraft were at a minimum.

b. Equipment failures in general are attributable to personal errors in the form of inadequate preflight inspection and adjustment.

3. COMMENTS:

Where the primary target is a precision visual target and the secondary a radar target, it is desirable to plan the target area course to go to the primary target thence to the secondary target, accepting a relatively poor radar bombing run, if the probability of no more than broken undercast is high. Difficulty is experienced in making a good bombing run if an early decision to bomb the secondary is changed during the bomb run where an opening over the primary is observed. If the probability of solid undercast is high, it is desirable to select a relatively good radar bombing run although the decision to bomb primary or secondary would then have to be made before reaching the primary target.

S E C R E T

48

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

CONSOLIDATED MISSION REPORT

RCM

MISSION NO. 7 F.O. 21

1. Number of Radar Observers participating - 9.
2. Number of Radar Observers completed mission-4.
3. Equipment employed:

Sets	Av Hours On	Malfunctions
AN/APR4	9 Sets	-
AN/APR5A	1	-
AN/APR5	6	-
AN/APA6X	2	-

4. Signals Logged:

Band	Number	PRF Range	Pulse width range
A-60-85	64	200-1500	7.5 - 80 user
B-85-120	100	200-800	.5 - 70 user
C-120-170	33	600-800	7.5 - 15 user
D-170-220	46	400-2500	.2 - 12 user
E-220-300	7	unknown	unknown
F-300-1000	23D	"	"
Above, spec- 1-1450 ify Frequency or 2900		"	"

5. Track overlay: Annotated map showing:
 - a. Track made good.
 - b. Position in hourly intervals (Z Time).
 - c. Approximate position at intercept of signals.
(Letters A-F are encircled to show location of A/C when signals in the band specified were heard).
6. Remarks.
 - a. Intercepts suggest complete coverage from 21°N to the target in EW bands up to 120 MC.
 - b. Over the mainland numerous signals from bands A thru D were logged.

SECRET

49

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

Consolidated Mission Report, RCM, Mission No. 7, F.O. 21, Cont'd.

- c. One centimeter signal of weak intensity was logged at 1450 or 2900 MC.
- d. Possible VHF fighter control was heard over the target area at 94-95 MC. Sharp voice commands were being given.
- e. Evidence of tracking by enemy radar suggest a maximum range of 120 nautical miles at altitudes in excess of 10,000 ft.
- f. Additional equipment including AN/APA6X's, AN/APR4's and associate high frequency tuning units (up to 6000MC) as well as AN/APR5A's will greatly facilitate further search work.

Incl 1: Overlay

SECRET

50

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

OVERLAY

Enemy Radar Intercepts

DECLASSIFIED

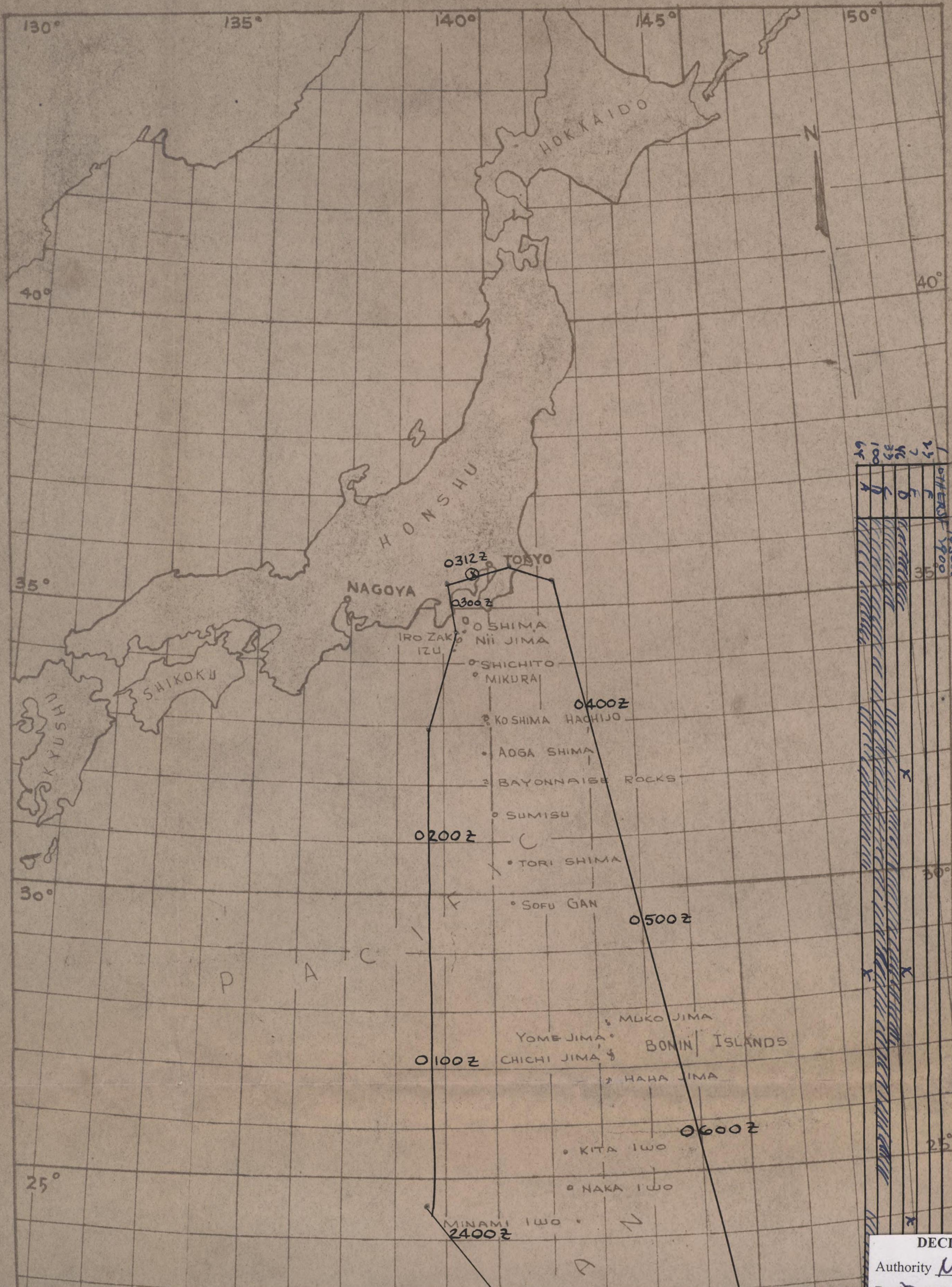
Authority UND760063

By PT NARA Date 8/26/05

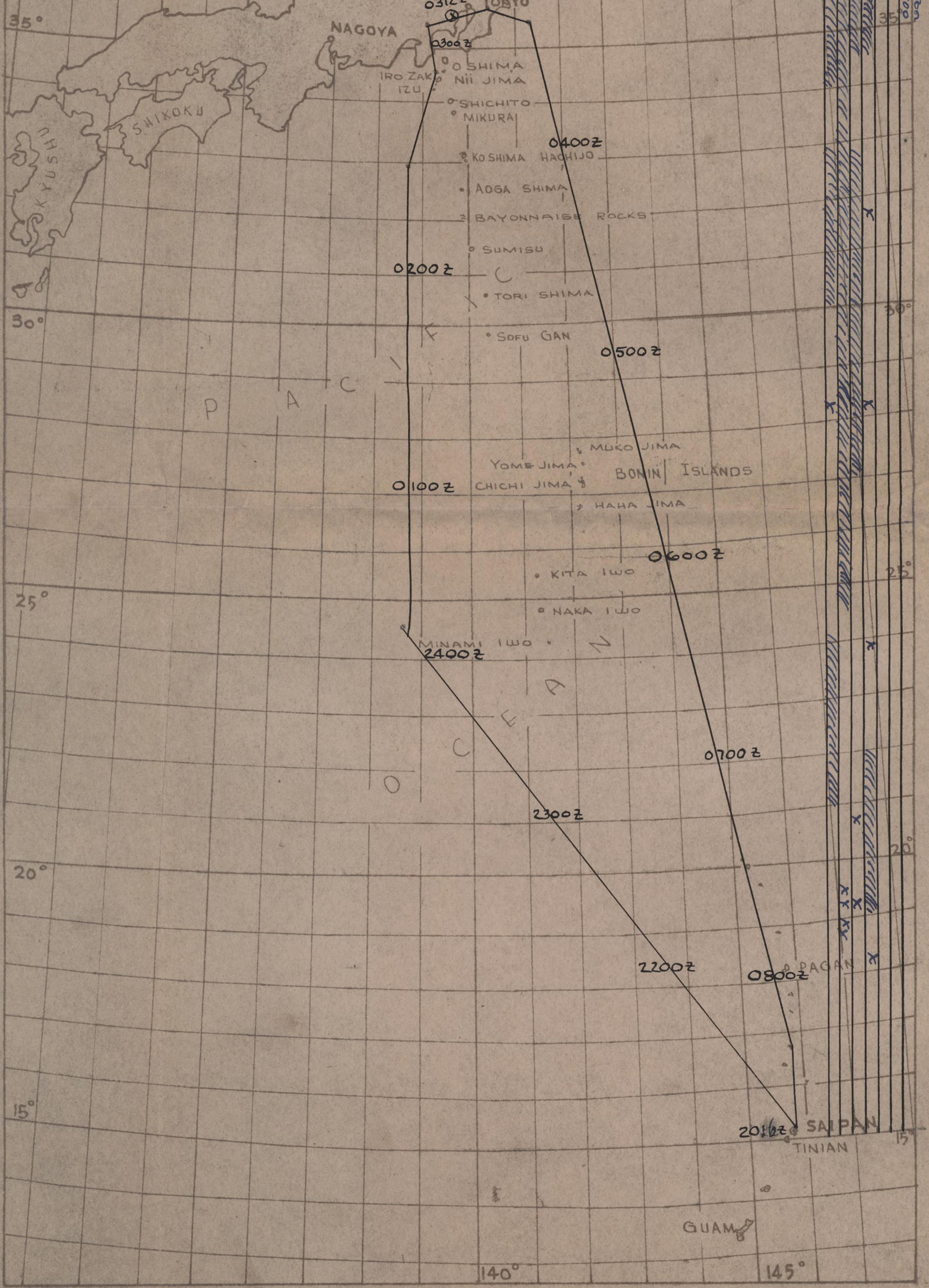
Incl # 1

OVERLAY

Enemy Radar Intercepts



22
 7
 46
 35
 100
 67
 A
 B
 C
 D
 E
 F
 G
 H
 I
 J
 K
 L
 M
 N
 O
 P
 Q
 R
 S
 T
 U
 V
 W
 X
 Y
 Z
 ENEMY RADAR INTERCEPTS



Mission # 7
 24 November 1944
 Take-off 2016Z
 Land 0926Z

- A 60-85 MC
- B 85-120 MC
- C 120-170 MC
- D 170-220 MC
- E 220-300 MC
- F 300-1000 MC

SECRET

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

S E C R E T

73RD BOMB WING

FIELD ORDER NO. 21

MISSION NO. 7

24 November 1944

Consolidated Statistical Summary

Primary Target MUSASHINO A/C PLANT - TOKYO, JAPAN

Table I Aircraft Participating

	NUMBER OF AIRCRAFT				
	TOTAL WING	GROUP			
		497	498	499	500
A/C Scheduled to Take-off	116	32	29	28	27
A/C Failing to Take-off	5	4 ^a	0	0	1 ^f
A/C Airborne	111	28	29	28	26
Number of Non-Effective Sorties	23	6	5	6	6
Percent of Airborne A/C Non-Effective	21%	21%	17%	21%	23%
A/C Reaching Target	94	22	25	25	22
A/C Bombing Target	88	22	24	22	20
A/C Failing to Return to Home Base	4	2 ^b	1 ^d	1 ^e	0
Time of Take-off:					
Earliest	2016 Z	2016 Z	2035 Z	2113Z	2141Z
Latest	2254 Z	2237 Z	2250 Z	2254Z	2225 Z
Time of Return:					
Earliest	0926 Z	0926 Z	1001Z	1037Z	0948Z
Latest	1259 Z	1154Z ^c	1216Z	1259Z	1220Z

- a. A/C 619 ALL ENGINES ROUGH. SPARK PLUGS FOULED DUE TO EXCESSIVE GROUND RUN.
A/C 627 No.4 ENGINE ROUGH. PERSONNEL ERROR - CREW CHIEF FOUND A/C TO BE ALL RIGHT
A/C 628 FAILURE OF LEFT INBOARD TIRE (CASING)
A/C 418 No.4 ENGINE OIL LEAK. FAULTY CAM FOLLOWER SEAL.
- b. A/C 622 - LOST - COLLISION WITH ENEMY FIGHTER. - ASSUMED EFFECTIVE
A/C 231 - LANDED AT TINIAM
- c. EXCLUDES A/C LANDING AT TINIAM
- d. A/C 663 - LANDED AT TINIAM
- e. A/C 679 - RAN OUT OF FUEL & DITCHED
- f. A/C 700 #2 ENGINE FAILURE - LACKED POWER FOR TAKE-OFF

S E C R E T

- 52 -

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

S E C R E T

73RD BOMB WING

FIELD ORDER NO. 21

MISSION NO. 7

24 November 1944

Consolidated Statistical Summary

Table II Breakdown of Non-Effective Aircraft by Cause

CAUSE	NUMBER OF AIRCRAFT				
	TOTAL WING	497	498	499	500
Mechanical Failure	21	6 ^a	4 ^b	5 ^d	6 ^f
Personnel Failure	1		1 ^c		
Flight Conditions					
Enemy Action					
Unknown					
Other	1			1 ^e	
Total	23	6	5	6	6

- a. A/C 595 #3 ENGINE, POWER FAILURE
 A/C 741 #1 PROP GOVERNOR TROUBLE. #4 OIL PRESSURE LOW.
 A/C 641 #1 FUEL PRESSURE SYSTEM OUT.
 A/C 413 #2 ENGINE CUTTING OUT. #3 PROP GOVERNOR FAILURE.
 A/C 655 #2 ENGINE, INTERNAL FAILURE.
 A/C 648 #2 ENGINE FAILURE; OIL LEAK BREATHER
- b. A/C 430 #4 CYLINDER #2 ENGINE SWALLOWED VALVE
 A/C 695 RUPTURED PUSH ROD HOUSING
 A/C 611 BLEW SPARK PLUG #3 ENGINE; OIL LEAK #4 ENGINE
 A/C 212 BOMB RELEASE JAMMED OVER TARGET
- c. PERSONNEL ERROR. A/C 663. AUTOMATIC OIL SHUTTER STUCK. ENGINEER DID NOT USE MANUAL CONTROL.
- d. A/C 224 FAILURE OF #2 & #3 ENGINES. METAL PARTICLES IN SUMP
 A/C 665 BLOWN CYLINDER HEAD #4 ENGINE
 A/C 438 BLOWN RELIEF VALVE OF FUEL PUMP
 A/C 220 BOMB BAY DOORS & MECHANISM FROZEN OVER TARGET.
 A/C 222 BOMB BAY DOORS & MECHANISM FROZEN OVER TARGET
- e. A/C 679 COULDN'T SEE LEADER DROP BOMBS & DID NOT HAVE SUFFICIENT FUEL TO MAKE ANOTHER RUN. AP/COMDR. CAPT. TUDOR.
- f. A/C 671 #4 ENGINE FAILURE, DEFLECTOR RING BURNED & CAUSED FIRE.
 A/C 656 #1 ENGINE FAILURE. EXCESSIVE LOSS OF OIL, HEAVY SMOKE POURING FROM ENGINE
 A/C 219 #2 ENGINE LOSS OF POWER
 A/C 668 #2 CYLINDER HEAD BLOWN #4 ENGINE
 A/C 435 MALFUNCTION OF BOMB RACK
 A/C 221 MALFUNCTION OF BOMB RACK

S E C R E T

73RD BOMB WING

FIELD ORDER NO. 21

MISSION NO. 7

24 Nov 44

Consolidated Statistical Summary

Bombing Data - Effective A/C

Table III Bombing Run

	TOTAL WING	NUMBER OF AIRCRAFT			
		GROUP			
		497	498 ^b	499 ^e	^f 500
A/C Reaching Target	94	22	25	25	22
A/C Dropping Bombs					
In Formation	87	21	24	22	20
Individual	1	1	0	0	0
Total	88	22	24	22	20
Time of Release:		a			
Earliest	0312Z	0312Z	0335Z	0423Z	0439Z
Latest	0537Z	0532Z	0537Z	0523Z	0515Z
Altitude of Release:		a			
Lowest	27,400	27,980	27,850	28,500	28,000
Highest	33,000	30,400	31,500	32,900	32,800
Visual Bombing - A/C Sighting for:					
Range & Deflection	9	4	3	0	2
Range	0	0	0	0	0
A/C Dropping on Leader	44	18	20	1 d	5
Radar Bombing:					
A/C Sighting	6	0	0	5	1
A/C Dropping on Leader	29	0	1 c	16	12
A/C Operated by:					
C - 1	13	2	3	5	3
Manual	75	20	21	17	17

a. Excludes one A/C bombing secondary target at 0555Z, 29,900 ft & one A/C bombing T. O. at 0513Z, 27,300 ft. All other A/C bombed primary target. b. All A/C bombed secondary target - docks & urban area of Tokyo. c. Leader sighted for radar but dropped visually. d. Joined 500th Gp formation. e. All but one A/C bombed secondary target. A/C bombing primary target: at 0439Z at 29,900 ft., Dropped on leader (note d) by C-1. f. 3 A/C bombed primary target visually, 13 A/C bombed secondary target by radar; 4 A/C bombed target of opportunity visually.

S E C R E T

-54-

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

S E C R E T

73RD BOMB WING

Consolidated Statistical Summary

FIELD ORDER NO. 21

Table IV Loading & Disposal of Bombs

MISSION NO. 7
24 Nov 44

GROUP	TYPE & WEIGHT OF BOMBS	FUSE SETTING		NUMBER OF BOMBS												PERCENT OF BOMBS RELEASED ON TARGET		
		NOSE	TAIL	LOADED				RELEASED				JETTISONED		UNKNOWN			RETURNED	
				ON ALL AIRCRAFT		ON AIRBORNE AIRCRAFT		ON PRIMARY TARGET		ON OTHER TARGETS								
				NO.	TONS	NO.	TONS	NO.	TONS	NO.	TONS	NO.	TONS	NO.	TONS		NO.	TONS
497	M 64 500 lb GP	.1	.025	224	56	196	49	135	33.75	a 14	3.5	45	11.25			2	.5	76%
	M 76 500 lb 1B	Inst	Non-Delay	96	24	84	21	56	14	a 6	1.5	20	5.0			2	.5	
498	M 64 500 lb GP	.1	.025	203	50.75	203	50.75			b 171	42.75	25	6.25			7	1.75	81%
	M 76 500 lb 1B	Inst	Non-Delay	87	21.75	87	21.75			b 73	18.25	11	2.75			3	.75	
499	M 64 500 lb GP	.1	.025	196	49	196	49	7	1.75	c 142	35.5	45	11.25			2	.5	76%
	M 76 500 lb 1B	Inst	Non-Delay	84	21	84	21	3	.75	c 59	14.75	20	5			2	.5	
500	M 64 500 lb GP	.1	.025	189	47.25	182	45.5	21	5.25	d 116	29.0	44	11			1	.25	75%
	M 76 500 lb 1B	Inst	Non-Delay	81	20.25	78	19.5	9	2.25	d 48	12.	20	5.			1	.25	
WING TOTAL	M 64 500 lb GP	.1	.025	812	203	777	194.2	163	40.75	443	110.75	159	39.75			12	3	
	M 76 500 lb 1B	Inst	Non-Delay	348	87	333	83.25	68	17.0	186	46.5	71	17.75			8	2	
TOTAL				1160	290	1110	277.5	231	57.75	629	157.25	230	57.5			20	5	77%

a. 1 A/C dropping on secondary target & 1 A/C dropping on T.O
 b. dropped on secondary target- urban & dock area of Tokyo

S E C R E T

c. secondary target- urban area & docks of Tokyo
 d. 88 Gp & 36 IB dropped on secondary target
 28 Gp & 12 IB dropped on T. O. - Matsuzaki

-55-

S E C R E T

73RD BOMB WING

FIELD ORDER NO. 21

MISSION NO. 7
24 Nov 1944

Consolidated Statistical Summary

Table V Bombing Accuracy

Target MUSASHINO A/C ENGINE FACTORY

G R O U P	Bombs Released On Target		Number of Hits and Distance from Target											
			0-500'		500-1000'		1000-2000'		2000-3000'		TOTAL			
	No.	Tons	No.	%	No.	%	No.	%	No.	%	No.	%		
	497	191	47.75	27	14%	6	3%	5	3%	1	-	52 *	27%	
					(NO OTHER SCORED HITS)									

* INCLUDES 13 AT 4000 FT.

S E C R E T

- 56 -

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

S E C R E T

73RD BOMB WING

FIELD ORDER NO. 21

MISSION NO. 7

24 November 1944

Consolidated Statistical Summary

Table VI Attacks & Passes by Enemy Aircraft

DIRECTION	ALTITUDE																Total Wing	
	HIGH				LEVEL				LOW				TOTAL					
	497	498	499	500	497	498	499	500	497	498	499	500	497	498	499	500		
0100	5	9			14	3		3					19	12		3	34	
0200	1	5		2	2			2					3	5		4	12	
0300			1		8	1		2					8	1	1	2	12	
0400	1				5	2		2					6	2		2	10	
0500	2									1	3		2			1	3	6
0600	1			1			1	2		10			1	10	1	3	15	
0700					2	5		1	1				3	5		1	9	
0800				1	1			3	1				2			4	6	
0900	1		3		3	4		2					4	4	3	2	13	
1000		5			2	1				4	1	1	2	10	1	1	14	
1100					4	1		2			1	1	4	1	1	3	9	
1200		11		5	3			7					3	11		12	26	
TOTAL	11	30	4	9	44	17	1	26	2	14	3	5	57	61	8	40	166	

Table VII Enemy Aircraft Destroyed & Damaged

GROUP	DESTROYED	PROBABLY DESTROYED	DAMAGED
497	2	8	5
498	5	9	0
499	0	0	3
500	0	1	1
TOTAL WING	7	18	9

S E C R E T

73RD BOMB WING

FIELD ORDER NO. 21

MISSION NO. 7

24 Nov 44

Consolidated Statistical Summary

Table VIII Aircraft Lost and Damaged

CAUSE	AIRCRAFT LOST				AIRCRAFT DAMAGED					
	TOTAL WING	497	498	499	500	TOTAL WING	497	498	499	500
ENEMY A/C		1a						2	1	
ENEMY FLAK								2	1	
ENEMY A/C & FLAK							1c	1		
ACCIDENT										
SELF-INFLICTED							1d		2	
UNKNOWN										
OTHER					1b					
TOTAL		1		1			2	5e	4f	

- a. A/C 622 Empennage hit by E/A supposedly out of control. A/C seen to strike water.
- b. A/C 679 Ran out of fuel and ditched
- c. A/C 626 Holes in Lead Edge of wing & Rt Rear fuselage. Fuel cell #4 damaged
- d. A/C 741 Holes in Bomb-Bay Door
- e. A/C 642 Holes in Bomb-Bay Doors. A/C 654 Left outboard wing panel.
A/C 544 Holes in vertical stabilizer; A/C 603 Flak holes in leading edge of rt wing
A/C 605 Bomb window knocked out by flak
- f. A/C 693 2 .50 cal. holes in left wing; A/C 647 small flak hole in nose; A/C 224 stripped of all removal parts to lighten weight; A/C 699 damaged by own guns

Table IX Repair of Damaged Aircraft

AIRCRAFT TO BE REPAIRED BY:	497	498	499	500	TOTAL
TACTICAL GROUP	1	4	3	0	8
SERVICE GROUP	1	1	0	0	2
DEPOT GROUP	0	0	1	0	1
TOTAL	2	5	4	0	11
NOT REPARABLE	0	0	0	0	0

S E C R E T

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

S E C R E T

73RD BOMB WING

FIELD ORDER NO. 21

MISSION NO. 7

24 Nov 44

Consolidated Statistical Summary

TABLE X Casualties

	Total	P	CP	NB	BN	FE	ROM	RO	CFC	LG	BG	TG	Other
Killed:													
497th													
498th													
499th	1											1	
500th													
Total Wing	1											1	
Missing:													
497th	11	1	1	1	1	1	1	1	1	1	1	1	
498th													
499th													
500th													
Total Wing	11	1	1	1	1	1	1	1	1	1	1	1	
Seriously Injured:													
497th													
498th	1				1								
499th													
500th													
Total Wing	1				1								
Slightly Injured:													
497th													
498th													
499th	3								1		1	1	
500th													
Total Wing	3								1		1	1	
Total Casualties:													
497th	11	1	1	1	1	1	1	1	1	1	1	1	
498th	1				1								
499th	4								1		1	2	
500th													
Total Wing	16	1	1	1	2	1	1	1	2	1	2	3	
No. Participating													
497th	322	28	28	28	28	28	28	28	28	28	28	28	14
498th	334	29	29	29	29	29	29	29	29	29	29	29	15
499th	321	28	28	28	28	28	28	28	28	28	28	28	13
500th	299	26	26	26	26	26	26	26	26	26	25	26	14
Total Wing	1276	111	111	111	111	111	111	111	111	111	110	111	56

S E C R E T

DECLASSIFIED
 Authority UND760063
 By PT NARA Date 8/26/05

S E C R E T

73RD BOMB WING

FIELD ORDER NO. 21

MISSION NO. 7
24 Nov 44

Consolidated Statistical Summary

Table XI Ammunition Consumption Data

AMMUNITION EXPENDED PER GROUP					
	497th	498th	499th	500th	TOTAL
20 MM.					
Fired	1113	958	420	665	3156
On Lost A/C	125	0	120	0	245
Total	1238	958	540	665	3401
.50 Cal.					
Fired	73,589	32,715	18,907	35,260	160,471
On Lost A/C	6,000	0	6,000	0	12,000
Total	79,589	32,715	24,907	35,260	172,471

AMMUNITION EXPENDED PER PLANE					
	497th	498th	499th	500th	TOTAL WING
Upper front	919	314	256	387	469
Lower front	426	230	159	274	274
Upper rear	451	264	146	147	252
Lower rear	507	258	154	313	308
.50 Cal. Tail	526	242	174	292	309
Total .50 Cal.	2829	1308	889	1413	1612
20 MM Tail	43	38	15	27	31

S E C R E T

-60-

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

SECRET

73RD BOMB WING

FIELD ORDER NO. 21

MISSION NO. 7

24 Nov 44

Consolidated Statistical Summary

Table XII Fuel Consumption Data

	TOTAL WING	GROUP			
		497 ^a	498 ^b	499 ^c	500 ^d
Average Fuel Aboard	80021	8000	8000	8023	8060
Average Flying Time	13:19	13:45	13:22	14:02	13:05
Average Distance - Nautical Air Miles	2896	2750	2846	3152	2842
Fuel Used:					
Average	6 8 41	6966	6344	7139	6914
Median	6976	6999	6890	7100	6913
Maximum	7526	7420	7400	7685	7600
Minimum	6386	6365	6380	6400	6400
Fuel Remaining:					
Average	1048	1034	1161	884	1113
Median	1053	1001	1110	942	1158
Maximum	1614	1635	1620	1600	1600
Minimum	470	580	600	300	400
Av Gallons per Hour	512	507	475	509	529
Av Gallons per Mile	2.36	2.53	2.23	2.23	2.43
Total Gasoline Con- sumed & Lost	731,353	180,732	183,080	192,317	175,224

- a. Includes 20 A/C
- b. Includes 25 A/C
- c. Includes 22 A/C
- d. Includes 26 A/C

Approximate Gross Weight at take-off - 137,000 pounds.

SECRET

-61-

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

20

~~TOP SECRET~~
~~SECRET~~

SECRET
By Authority of the Commanding
General
29 Nov 44 73 BW Lt
Date Initials

~~TOP SECRET~~
By Auth of CG 73d BW
NOV 16 1944
Initials Date

73d Bomb Wg
SAIPAN
0900 Z 16 Nov 44

AMMENDMENT NO 1 TO FO 21 73D BOMB WG

1. Add to Par 1, b., (2), (b), to read:

- 1. One (1) Dumbo airplane will be at
(23° 15' N - 142° 00'E)
at 0730 and will remain on position until passage of the force.
- 2. Three (3) Dumbo airplanes and six (6) Coronados will remain at
SAIPAN to be dispatched on call.
- 3. One (1) or more destroyers will be at
(21° 00'N - 144° 45'E)
on "D" day.

2. Add to Par 1, b.:

- (3) If possible do not ditch within a seven (7) mile radius of
INUBIO SAKI
(35° 43'N - 140° 52'E).
Enemy mine fields prohibit friendly subs from penetrating the area.

3. Add to Par 3, x :

- (8) Each Sq will carry a minimum of three (3) K-22 cameras for the
purpose of taking strike photographs.

By command of Brigadier General O'DONNELL:

BRUGGE
DC/S, O & T

OFFICIAL:
Walker
WALKER
Asst A-3

~~TOP SECRET~~
~~SECRET~~

#18

TOP SECRET
SECRET
By Authority of the Commanding
General
19 Nov 44, 73 BW Lt
Date Initials

~~TOP SECRET~~
By auth of CG 73d BW
NOV 19 1944
Initials Date

73d Bomb Wg
SAIPAN
0001Z 19 Nov 44

AMMENDMENT NO 2 TO FO 21 73d Bomb Wg

1. Change Par 1. b. (2) (b) to read:

1. The dumbo will be on station between 0830 and 0945 I. Its CW call is 24V213; its voice call, the reference name for IWO JIMA for the day. Its position is 100 mi 132° from IWO JIMA.
2. Three additional dumbos will be ready to take-off at 1430 I. Their call signs in order of their take-off are 60V240, 61V240 and 62V240.
3. The name of the destroyer is the SWANSON; its station is Lat 21° 00'N - Long 144° 00'E. Its speed is 22 Kts. Its voice call is BEARMEAT, its CW call One Sugar Uncle (1SU) using CSP 1270.

2. Change Par 3. x. (3) to read:

(3) Zero Hr: 2015Z(date to follow).

3. Add to Par 3. x. :

- (9) Emergency Landing Flds:
- (a) ISLEY NO 2 - SAIPAN.
 - (b) NAVY AGANA - GUAM
 - (c) NAVY WEST FLD - TINIAN

The NORTH FLD at TINIAN is no longer operational. The WEST FLD is available for emergency use. The WEST FLD call sign is "PALM".

By command of Brigadier General O'DONNELL:

BRUGGE
DC/S, O & T

OFFICIAL:

Walker
WALKER
Asst A-3

TOP SECRET

#20

TOP SECRET

TOP SECRET
By auth of CG 73d BW

Initials _____ Date 20 Nov 44

73d Bomb Wg
SAIPAN
0600Z 20 Nov 44

AMMENDMENT NO 3 TO FO 21 73d Bomb Wg

1. Change Par 3. c. to read:
 - c. 499th Bomb Gp furnishes two Sqs for 4th Combat Gp and one Sq which flies as the 6th Combat Gp.

2. Change Par 3. x. (2) to read:
 - (2) 2nd, 4th and 6th Combat Gps Atk via Route "B" as follows except that the 6th Combat Gp returns to SAIPAN.

3. Change Par 3. x. (3) to read:
 - (3) Zero Hr: 2120 Z (date to be given verbally)

By command of Brigadier General O'DONNELL:

BRUGGE
DC/S, O & T

OFFICIAL:

Wilkinson
WILKINSON
Asst A-3

SECRET	
By Authority of the Commanding General	
29 Nov 44	73 BW Ltr
Date	Initials

TOP SECRET

64

DECLASSIFIED
Authority UND760063
By PT NARA Date 8/26/05

15

~~TOP SECRET~~

SECRET
By Authority of the Commanding
General
Mr 29 Nov 1944
Date Initials

TOP SECRET
By Auth of CG 73d BW

[Signature] 11/15/44
Initials Date

73d Bomb Wg
SAIPAN
2100 Z 15 Nov 44

FO 21

Maps: Sectional Aeronautical charts: MT FUJI, MARIANAS ISLANDS and GUAM, scale 1:1,000,000. Long Range Navigation Charts: CAROLINE ISLANDS and JAPAN, scale 1:3,000,000. Target Folder 90.17 JAPAN.

1. a. (1) Hv intense accurate AAA in TOKYO area and along Northwest shore of TOKYO BAY; preliminary analysis reveals at least 150 guns between 90.17 - 357 and FUNABASHI. Hv moderate to intense accurate AAA on CHIBA PENINSULA and along shore of SAGAMI BAY.

(2) Latest estimates indicate approximately 400-500 fighter A/C in TOKYO - NAGOYA area. Types known to be present are Zekes, JACKS, FRANKS, NICKS, OSCARS and possibly IRVINGS.

b. (1) Five lifeguard submarines will be located at the following points:

- (a) 35° 27'N - 141° 35'E
- (b) 34° 15'N - 138° 21'E
- (c) 32° 38'N - 142° 25'E
- (d) 29° 37'N - 143° 15'E
- (e) 25° 00'N - 144° 10'E

(2) (a) Com Air Forward will provide air defense of the operating bases.

(b) Dumbo airplanes will patrol in the vicinity of the following points on the return route:

- 1.
- 2. (To follow later)
- 3.
- 4.

2. 73d Wg Atks targets TOKYO (date to follow).

Primary target: 90.17 - 357 (35° 43'N - 139° 35'E).

Secondary and Last Resort target: Docking facilities and built up area in TOKYO bounded by coordinates (35° 39'N - 139° 46'E) (35° 43'N - 139° 47' 30"E) (35° 43'N - 139° 52'E) (35° 39'N - 139° 52'E). Location of Secondary and Last Resort target shown by attached map of TOKYO area.

Method of bombing: Sq pattern (A/C drop on Sq Leader, Deputy Leader sight for range).

Primary target: Visual with radar as aid.

Secondary and Last Resort target: Complete radar approach with final adjustment by visual sighting if possible. Sq Leader makes decision at or before IP whether to atk primary or secondary target. See Annex 1.

~~TOP SECRET~~ 65

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

~~TOP SECRET~~

Formation: Combat Gps composed of two 9-A/C Sqs in visual contact. Route formation from Departure Point to top of climb then Sqs in close formation until Turn Point ($35^{\circ} 19'N - 141^{\circ} 36'E$) or beyond until E/A cease Atk. Then route formation to point opposite IWO JIMA. Then individual A/C to base.

3. a. 497th Bomb Gp furnishes two Sqs for lead combat Gp and lead Sq of 3rd Combat Gp.
- b. 498th Bomb Gp furnishes two Sqs for 2nd Combat Gp and 2nd Sq of 3rd Combat Gp.
- c. 499th Bomb Gp furnishes two Sqs for 4th Combat Gp.
- d. 500th Bomb Gp furnishes two Sqs for 5th Combat Gp.
- x. (1) 1st, 3rd and 5th Combat Gps Atk via Route "A" as follows:

Route out and back: See Inclosure 1 - Flight Plan Route "A".

IP: MOUNT FUJI ($35^{\circ} 23'N - 138^{\circ} 42'E$). Between IP and target descend to bombing altitude, Lead Sq 28,000 ft, 2nd Sq 28,500 ft P.I.A.

Axis of Atk: Primary target - 63° true. Secondary target - 71° T.

Aiming point: Primary - center of West block. Secondary - Radar: Northern tip of island at mouth of SIMIDA RIVER. Visual: Any industrial target in area as specified in Par 2 above.

Maneuver after Atk: Primary target - turn left 45° then right 90° letting down 1,000 ft at 205 MPH. Proceed to TP ($35^{\circ} 19'N - 141^{\circ} 36'E$). Secondary target - turn right 45° then left turn on course to TP letting down 1,000 ft at 205 MPH.

- (2) 2nd and 4th Combat Gps Atk via Route "B" as follows:

Route out and back: See Inclosure 2 - Flight Plan Route "B".

IP: OHAMI AIRFIELD ($35^{\circ} 28'N - 140^{\circ} 25'E$). Between IP and target descend to bombing altitude, Lead Sq 29,000 ft, Second Sq 29,500 ft.

Axis of Atk: Primary target: - 290° true, Secondary - 293° true.

Aiming point: Primary target - power house in center of East block. Secondary - Radar: Mouth of ARA RIVER ($35^{\circ} 40'N - 139^{\circ} 51'E$). Visual: Any industrial target in area as specified in Par 2 above.

Maneuver after Atk: Turn right 180° letting down 1,000 ft at 205 MPH return to TP ($35^{\circ} 19'N - 141^{\circ} 36'E$).

- (3) Zero Hr: 1954 Z (Date to follow).

- (4) Bomb load: 3 X 500 lb M-76 JB, 7 X 500 lb G.P. Fuze G.P. 's .10 sec nose, .025 sec tail. JB's instantaneous nose, none-delay tail.

- (5) Interverometer setting: 150 ft.

~~TOP SECRET~~

- (6) Gasoline load: 8,000 gals.
 - (7) Ammunition load: 6,000 rds .50 cal, 120 rds 20 mm.
4. No change.
5. a. (1) Annex 3 (Comm).
(2) SOP Communications XXI BCM COM dd 15 Nov 44.
- b. Command Posts:
- (1) Air - Sq Leaders.
 - (2) Ground - Hq 73d Bomb Wg.

By command of Brigadier General O'DONNELL.

BRUGGE
DC/S, O & T

OFFICIAL:

Walker
WALKER
Asst A-3

Annex 1 - Bombing Data
Annex 2 - Cruising Control
Annex 3 - Communications
Annex 4 - Radar Countermeasures

3 Incls:
Incl 1 - Route "A"
Incl 2 - Route "B"
Incl 3 - Map TOKYO area

TOP SECRET

~~TOP SECRET~~

ANNEX 1 TO FO 21 73D BOMB WG

BOMBING DATA

1. Primary Target: MUSASHINO Plant (90.17 - 357).

Coordinates: (35° 43'N - 139° 35'E).

Axis of Atk: Route A - 63° T.

Route B - 291° T.

Aiming Point: Route A - Center of West block.

Route B - Power house at center of East block.

Target Dimension: Appx 1000' X 2000'.

Elevation: 183'.

Initial Point: Route A - MOUNT FUJI (35° 22'N - 138° 43'E).

Route B - OHAMI AIRFIELD (35° 30'N - 140° 26'E).

Variation: 6° W.

Method of Atk: By Sqs - Visual with radar as aid, leader sights for range and deflection, deputy leader sights for range only, others drop on leader.

2. Secondary and Last Resort Target: Docks and Urban area of TOKYO.

Coordinates: (35° 41'N - 139° 49'E).

Axis of Atk: Route A - 71° T.

Route B - 293° T.

Aiming Point: This is intended for use as a radar alternate in the event of the primary being obscured for visual bombing. In the event that the Secondary target can be seen, aim for any of the industrial targets visible in the area bounded by (35° 39'N - 139° 46'E) (35° 43'N - 139° 47' 30"E) (35° 43'N - 139° 52'E) (35° 39'N - 139° 52'E) as shown in the attached chart, Incl 3.

Elevation: Average 50'.

Initial Points: Same as Primary target.

Method of Atk: By Sqs - Radar for leader, deputy leader sights for range only, others drop on leader.

3. Bomb Load: 7 ea 500 lb AN-M-64 G.P. (Use M-43 bomb tables; AN-M-103, .1 sec delay nose fuse; AN-M-101 42, .025 sec delay tail fuse.

3 ea 500 lb AN-M-76 I.B.; AN-M-103, instantaneous nose fuse; AN-M-101 42, non-delay tail fuse.

Intervalometer spacing: 150 ft.

Subtract 20 mils trail for visual bombing, do not subtract trail for radar bombing.

Order of release: 3 GP, 1 IB, 2 GP, 1 IB, 2 GP, 1 IB.

Bombing Altitude: Route A - 28,000 P.I.A. base.
Route B - 29,000 P.I.A. base.

~~TOP SECRET~~

-1-

67

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

~~TOP SECRET~~

4. RADAR BOMBING DATA FOR SECONDARY TARGET

a. Special Instructions:

- (1) Leader and Deputy Leader will operate radar antenna in continuous 360° rotation only in the target area.
- (2) No. 4 A/C will operate as standby in the target area using SECTOR SCAN 30° to 90° only.
- (3) No. 7 A/C will operate as standby in the target area, using SECTOR SCAN 270° to 330° only.
- (4) Other A/C will not operate radar sets in the target area.
- (5) Bombing will be done on 20-MILE RANGE of scope.
- (6) ADJUSTABLE RANGE CONTROL will be preset to give 17 miles actual range on scope for bombing.

b. Offset Aiming Points:

(1) Route A:

- (a) Description: Northern tip of island in mouth of SUMIDA RIVER.
- (b) Coordinates: (35° 40'N - 139° 51'E).

(2) Route B:

- (a) Description: Bridge at mouth of ARA RIVER.
- (b) Coordinates: (35° 40'N - 139° 47'E)

c. Measure Course Error at 11.00 N.M. Slant Range

d. Begin Final Correction, Start Rate Motor 8.00 N.M. Slant Range

~~TOP SECRET~~

SECRET
TOP SECRET

e. Final Course Correction Table:

Measure Course Error at 11.00NM Slant Range	Make Final Correction, Start Rate Motor at 8.00 NM Slant Range
0°	0°
1	1
2	2
3	3
4	4
5	6
6	7
7	9
8	10
9	11
10	13
11	14
12	16
13	18
14	19
15	22
16	23
17	24
18	26
19	28
20	30
21	33
22	36
23	39
24	42

f. Bombardier's Sighting Angle Table:

True Alt	Preset Tel. Angle
26,250	62.7°
500	62.4
750	62.1
27,000	61.8

SECRET
TOP SECRET

Annex 1 to FO 21, 73d BW
(cont'd)

SECRET
TOP SECRET

4. f. (cont'd)	<u>True Alt.</u>	<u>Preset Tel. Angle</u>
	27,250	61.5 ⁰
	500	61.2
	750	60.9
	28,000	60.6
	28,250	60.3
	500	60.0
	750	59.7
	29,000	59.4
	29,250	59.1
	500	58.8
	750	58.5
	30,000	58.2
	30,250	57.9
	500	57.6
	750	57.3
	31,000	57.0
	31,250	56.7
	500	56.4
	750	56.1
	32,000	55.7
	32,250	55.4
	500	55.1
	750	54.8
	33,000	54.5
	33,250	54.2
	500	53.9
	750	53.6
	34,000	53.3

By command of Brigadier General O'DONNELL:

BRUGGE
DC/S, O & T

OFFICIAL:

W. Wilkinson
WILKINSON
Asst A-3

SECRET
TOP SECRET

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

TOP SECRET

ANNEX NO 2 TO FO 21, 73D BOMB WG

CRUISE CONTROL

1. Fuel Requirements:

a. Est fuel single A/C	6700	gals	
b. Formation reserve	536	"	
c. 2 Hr endurance reserve	564	"	
d. Residual	<u>200</u>	"	
e. Total required			8000 gals
f. Total aboard			8000 gals

2. Loading:

- Fuel -- Fill wing tanks, center wing and bomb bay tanks.
- Ammunition -- 6000 rds of .50 cal and 120 rds 20 MM.
- Bombs -- 5400# in rear bomb bay.
- Approximate gross Wt at take-off -- 136,800#

3. Cruise Plan:

- See attached Route Plans.
- Airspeeds specified will be strictly adhered to in order to make time arrivals at target correct.

By command of Brigadier General O'DONNELL:

BRUGGE
DC/S, O & T

OFFICIAL:

Gibson
GIBSON
Wg Staff Engr

TOP SECRET

-1- 69

DECLASSIFIED

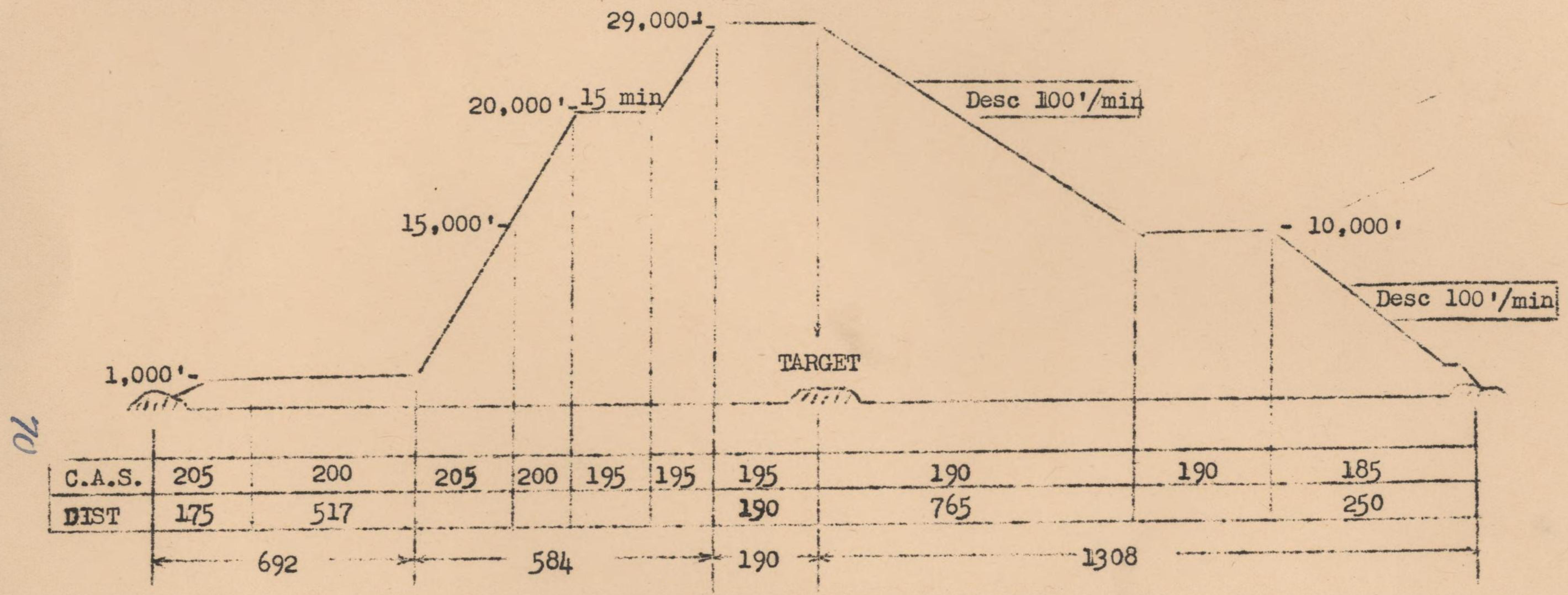
Authority UND760063

By PT NARA Date 8/26/05

TOP SECRET

CRUISE PLAN TO ANNEX 2 TO FO 21 73D BW

ROUTE "A"



By command of Brigadier General O'DONNELL:

BRUGGE
DC/S, O & T

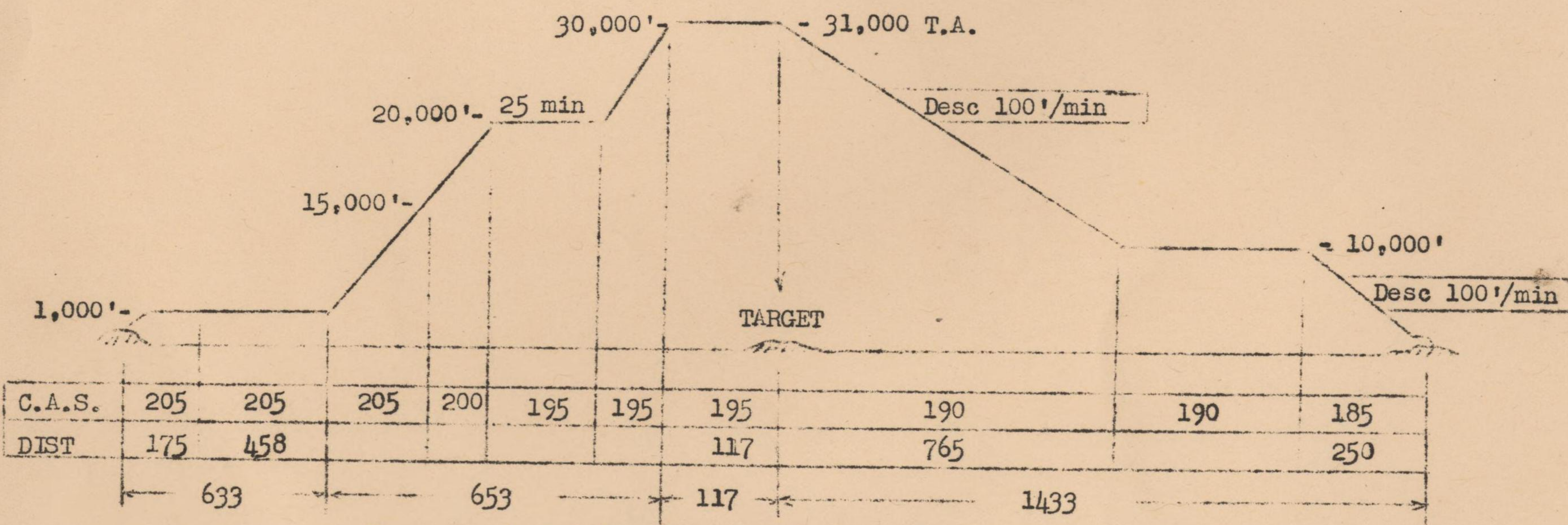
OFFICIAL:

Gibson
GIBSON
Wg Staff Engr

TOP SECRET

CRUISE PLAN TO ANNEX 2 TO FO 21 73D BW

ROUTE "B"



By command of Brigadier General O'DONNELL:

OFFICIAL:

Gibson
GIBSON
Wg Staff Engr

BRUGGE
DC/S, O & T

S E C R E T

ANNEX 3 to FO #21. 73D BW

COMMUNICATIONS

1. Radio Frequencies:

a. Liaison AN/ART 13

- | | | | |
|-------|--------|--|----------------|
| 1. | 3145 | 73 BW Ground Station | (CW) |
| 2. | 7310 | 73 BW Ground Station | (CW) |
| 3. | 11160 | 73 BW Ground Station | (CW) |
| 4. | 4475 | Primary Dumbo Lifeguard | (Voice and CW) |
| 5. | 4420 | Secondary Dumbo Lifeguard | (Voice and CW) |
| 6. | 4595 | AACS Ground Station | (CW) |
| 7. | 8200 | AACS Ground Station | (CW) |
| 8. | 4495 | Saipan Tower | (Voice) |
| 9. | 7362.5 | 30th Bomb Group Primary | (CW) |
| 10. | 7590 | 30th Bomb Group Secondary | (CW) |
| Low - | 500 | Int'l Distress (CW) guarded by all stations
15-18 min and 45-48 min after the hour. | |

Guarded continuously by Lifeguard during strike

b. VHF Command:

- Channel A - Bomber to Fighter
- Channel B - Bomber to Bomber
- Channel C - Tower, Dumbo and Lifeguard
- Channel D - Homing

c. SCR 274-N

(DO NOT USE COMMAND SET EXCEPT IN EMERGENCY)

2. Radio Call Signs and Call Words:

- V531 - 497th Bombardment Group
- V532 - 498th Bombardment Group
- V533 - 499th Bombardment Group
- V534 - 500th Bombardment Group
- 00V530 - 73rd Bombardment Wing Ground Station
- 00V550 - 30th Bombardment Group Ground Station (Emerg. Alternate)

3. Codes, Ciphers, and Recognition.

- a. Air-Ground - CSP 1270 (CV)
- b. Authentication - Voice and CW - CSP 1270 (CV)
- c. Recognition Signals:

- (1) SP 02440 - Key List
- 02442 - Recognition Signals, Surface Vessels
- 02443 - Recognition Signals, Submarines
- 02312 - Air-Sea Recognition Procedure

S E C R E T 72

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

S E C R E T

4. Contact and Strike Reports:

- a. Contact Reports - SOP Communications XXI Bomber Command dated 15 November 1944.
- b. Strike Reports - SOP Communications XXI Bomber Command dated 15 November 1944.

5. Radio Aids to Navigation:

- a. Extracts of NATAPOA covering Saipan, Tinian, and Guam.

6. Rescue Procedure and Facilities:

- a. See Annex No 1 to Annex No 3 to F.O. 21.

7. IFF: Code 1

- a. Turn on at take off. Turn off when 300 miles out from base.
- b. Turn on again when 50 miles from target. Leave on until landing at home base.
- c. EMERGENCY code in distress.

8. Distress Procedure:

- a. SOP Communications XXI Bomber Command dated 15 November 1944.
- b. Lost and Distress Procedures: Airplane Commander, Navigator, Radio and Radar Operator.

By Command of Brigadier General O'DONNELL:

BYRON E. BRUCGE
Colonel, Air Corps
Dep C/S Op. and Tng.

OFFICIAL:

Hotchkiss
EDWIN L. HOTCHKISS
Lt. Colonel, Air Corps
Communications Officer

S E C R E T

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

S E C R E T

ANNEX NO 4 TO FO 21 73RD BOMB WING

RADAR COUNTERMEASURES

1. Each Group will equip two A/C with search receivers and will provide two Radar Observers (7888) to operate the equipment.
2. The spectrum from 40 to 300 MC will be monitored continuously, a log being maintained.
3. The following information will be recorded:
 - a. Frequency.
 - b. Approximate P.R.F.
 - c. Time (G.C.T.)
 - d. Duration (time signal was heard).
 - e. Approximate sweep rate.
 - f. Time radar tracked flight.
 - g. Estimated distance from probable enemy radar location when tracking began.
 - h. Additional data obtainable.

By command of Brigadier General O'DONNELL:

BRUGGE
DC/S, O & T

OFFICIAL:

Wilkinson
WILKINSON
Asst A-3

S E C R E T

-1-

73

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

TOP SECRET

ROUTE "A" OUT

FLIGHT PLAN

	True Crsc	Dist	Alt	Temp	IAS	TAS	Time	ETA	Remarks
Base		175	1000	+30	205	185	52		Assemble
16° 27'N - 144° 30'E									
16° 27'N - 144° 30'E									
23° 53'N - 139° 22'E	326	517	1000	+30	200	178	2:54	3:46	
23° 33'N - 139° 22'E	326	33	10000	+10	205	211	9	3:55	Start climb 300 ft/min to 15000 ft
24° 00'N - 139° 00'E									
24° 00'N - 139° 00'E	354	132	10000	+10	205	211	37	4:32	15000 ft continue to 20000 200 ft/min
26° 13'N - 138° 14'E									
26° 13'N - 138° 14'E	354	98	18300	-7	200	235	25	4:57	End climb - 2 min dog-leg
27° 50'N - 138° 30'E									
27° 50'N - 138° 30'E	354	59	20000	-11	195	235	15	5:12	Level -
28° 48'N - 138° 24'E									
28° 48'N - 138° 24'E	354	243	26000	-25	195	258	57	6:09	Start climb - 29000
32° 50'N - 137° 50'E									
32° 50'N - 137° 50'E	17	15	29000	-25	195	258	3	6:12	End climb
33° 05'N - 137° 55'E									
33° 05'N - 137° 55'E	17	145	29000	-30	195	270	32	6:44	
35° 23'N - 138° 44'E									
35° 23'N - 138° 44'E	63	45	29000	-38	195	270	10	6:54	Target Dist 1458
35° 42'N - 139° 35'E									

74

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

TOP SECRET

ROUTE "A" OUT

FLIGHT PLAN

	True Crcs	Dist	Alt	Temp	IAS	TAS	Time	ETA	Remarks
Base		175	1000	+30	205	185	52		Assemble
16° 27'N - 144° 30'E									
16° 27'N - 144° 30'E									
23° 53'N - 139° 22'E	326	517	1000	+30	200	178	2:54	3:46	
23° 33'N - 139° 22'E	326	33	10000	+10	205	211	9	3:55	Start climb 300 ft/min to 15000 ft
24° 00'N - 139° 00'E	354	132	10000	+10	205	211	37	4:32	15000 ft continue to 20000 200 ft/min
26° 13'N - 138° 14'E	354	98	18300	-7	200	235	25	4:57	End climb - 2 min dog-leg
27° 50'N - 138° 30'E	354	59	20000	-11	195	235	15	5:12	Level -
28° 48'N - 138° 24'E	354	243	26000	-25	195	258	57	6:09	Start climb - 29000
32° 50'N - 137° 50'E	17	15	29000	-25	195	258	3	6:12	End climb
33° 05'N - 137° 55'E	17	145	29000	-32	195	270	32	6:44	
35° 23'N - 138° 44'E	63	45	29000	-38	195	270	10	6:54	Target Dist 1458
35° 42'N - 139° 35'E									

ROUTE "A" BACK

35° 42'N - 139° 35'E	108	75	20000	-11	190	229	20		Descend to 10000 ft
35° 20'N - 141° 00'E	167	513	20000	-11	190	229	2:14	2:34	Descend to 10000 ft Turn
27° 00'N - 143° 47'E	171	177	20000	-11	190	229	46	3:20	
24° 05'N - 144° 17'E	171	292	10000	+10	190	196	1:30	4:50	Level out
19° 18'N - 145° 05'E	171	250	6000	+20	185	180	1:24	6:14	Descend to 2000 ft Dist 1307 - Total 2765
Base									

By command of Brigadier General O'DONNELL:

BRUGGE
DC/S, O & T

OFFICIAL:

REBECK
Wg Staff Dev

TOP SECRET

Incl #1 to FO 21

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

~~SECRET~~

ROUTE "B" OUT

FLIGHT PLAN

	True Crse	Dist.	Alt	Temp	IAS	TAS	Time	ETA	Remarks
Base		175	1000	+30	205	185	52		Assemble
16° 27' N - 144° 30' E									
16° 27' N - 144° 30' E	356	458	1000	+30	205	185	2:28	3:20	
24° 05' N - 144° 00' E									
24° 05' N - 144° 00' E	356	165	10000	+10	205	211	47	4:07	Climb to 20000 ft
26° 30' N - 143° 47' E									
26° 30' N - 143° 47' E	356	10	10000	+10	200	235	2	4:09	Turn
27° 00' N - 143° 47' E									
27° 00' N - 143° 47' E	344	88	18300	-7	200	235	29	4:32	End climb - two min dog-leg
28° 24' N - 143° 30' E									
28° 24' N - 143° 30' E	344	98	20000	-11	195	235	25	4:57	Level
29° 59' N - 142° 48' E									
29° 59' N - 142° 48' E	344	290	26600	-25	195	260	67	6:04	Climb to 30000 ft
31° 40' N - 141° 12' E									
31° 40' N - 141° 12' E	344	43	30000	-38	195	275	10	6:14	End climb - 2 min dog-leg
35° 18' N - 141° 00' E									
35° 18' N - 141° 00' E	288	30	30000	-38	195	275	6	6:20	I.P.
35° 29' N - 140° 28' E									
35° 29' N - 140° 28' E	288	44	30000	-38	195	275	10	6:30	Target Dist 1404

75

TOP SECRET

ROUTE "B" OUT

FLIGHT PLAN

	True Crse	Dist.	Alt	Temp	IAS	TAS	Time	ETA	Remarks
Base		175	1000	+30	205	185	52		Assemble
16° 27'N - 144° 30'E									
16° 27'N - 144° 30'E	356	458	1000	+30	205	185	2:28	3:20	
24° 05'E - 144° 00'E									
24° 05'E - 144° 00'E	356	165	10000	+10	205	211	47	4:07	Climb to 20000 ft
26° 50'N - 143° 47'E									
26° 50'N - 143° 47'E	356	10	10000	+10	200	235	2	4:09	Turn
27° 00'N - 143° 47'E									
27° 00'N - 143° 47'E	344	88	18300	-7	200	235	29	4:32	End climb - two min dog-leg
28° 24'E - 143° 20'E									
28° 24'E - 143° 20'E	344	98	20000	-11	195	235	25	4:57	Level
29° 59'N - 142° 48'E									
29° 59'N - 142° 48'E	344	290	26600	-25	195	260	67	6:04	Climb to 30000 ft
31° 40'N - 141° 12'E									
31° 40'N - 141° 12'E	344	43	30000	-38	195	275	10	6:14	End climb - 2 min dog-leg
35° 18'N - 141° 00'E									
35° 18'N - 141° 00'E	280	30	30000	-38	195	275	6	6:20	I.P.
35° 29'N - 140° 28'E									
35° 29'N - 140° 28'E	288	44	30000	-38	195	275	10	6:30	Target Dist 1404

ROUTE "B" BACK

35° 42'N - 139° 35'E	108	75	20000	-11	190	229	20		Descend to 10000 ft
35° 20'N - 141° 00'E									
35° 20'N - 141° 00'E	167	513	30000	-11	190	229	2:14	2:34	Descend to 10000 ft Turn
27° 00'N - 143° 47'E									
27° 00'N - 143° 47'E	171	177	20000	-11	190	229	46	3:20	
24° 05'N - 144° 17'E									
24° 05'N - 144° 17'E	171	418	10000	+10	190	196	2:08	5:28	Level out
17° 19'N - 145° 22'E									
17° 19'N - 145° 22'E	190	250	6000	+20	185	180	1:24	6:52	Descend to 2000 ft Dist 1433 - Total 2837
Base (Guam)									

By command of Brigadier General O'DONNELL:

OFFICIAL:
REINHOLD
Wg Staff Nav

BRUGGE
DC/S, O & T

Incl 2 to FO 21

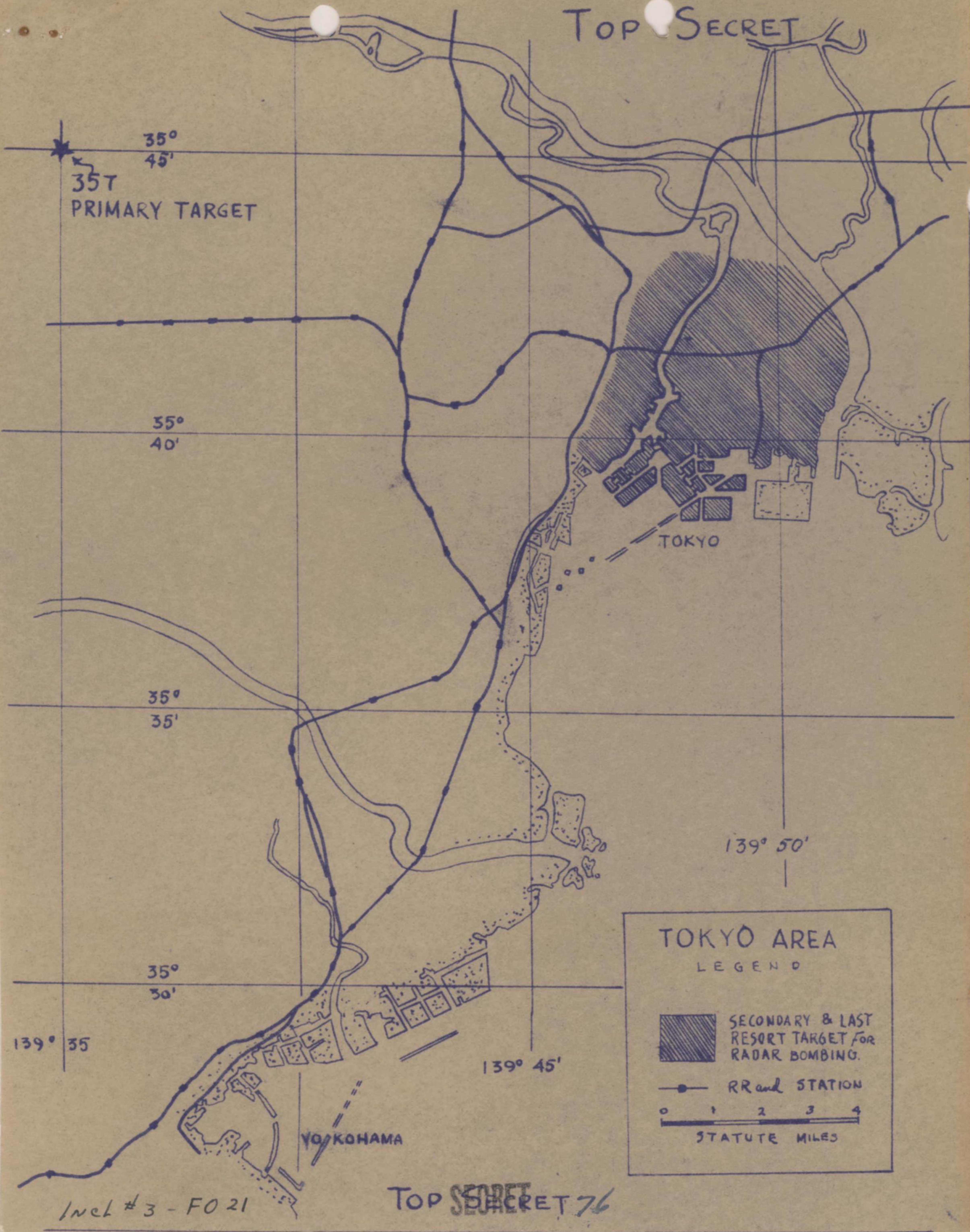
TOP SECRET

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

TOP SECRET



DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

S E C R E T

CONSOLIDATED MISSION REPORT

MISSION NO. 7, F. O. 21

E. REPORTS OF GROUP ENGINEERING OFFICER AND
ACTING FLIGHT ENGINEER

1. A/C failing to take off

5

497th Bomb Group

A Square-50 #4 engine oil lead - cam follower oil hole plugged.

A Square-27 #4 engine rough on pre-flight.

A Square-23 Loaded engine - could not be burned out.

A Square-29 Loaded engine - could not be burned out.

500th Bomb Group

43-24700 - Cylinder failure #3 engine.

2. A/C failing to reach target (Returning early)

17

497th Bomb Group

A Square-2 #3 engine internal failure.

A Square-11 #1 Prop stuck at 2800 rpm (broken electric lead)

A Square-43 #1 engine fuel transfer cable control inoperative.

A Square-45 #2 engine rough operation in auto lean #3 prop stuck
at 220 rpm.

A Square-46 #2 engine - Internal failure.

A Square-48 #2 engine - bad oil leak - siphoning at altitude.

498th Bomb Group

T Square-43 Oil cooler shutters stuck in automatic, causing oil pressure to go down and oil temp to go up.

T Square-6 #2 engine was smoking and losing oil rapidly used 45 gallons in 3½ hours.

T Square-4 Spark plug blown on #9 cylinder on #3 engine.

T Square-1 #4 cylinder on #2 engine swallowed a valve.

499th Bomb Group

5224 - Lost two (2) engines over coast of Japan.

4665 - Blown cylinder head #4 engine just after TO.

3438 - Relief valve on fuel pump #4 engine inoperative.

500th Bomb Group

4671 - Deflector ring burned off #4 engine causing engine fire.

4656 - Excessive loss of oil #4 engine.

5219 - Extreme detonation 2000 rpm and 30" Hg (harness leak)

4668 - #2 cylinder blew on #4 engine

S E C R E T 77

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05

SECRET

3. Aircraft Malfunctioning (those completing mission)

a. Statement of difficulties

- (1) Oil leaks. Approximately 15 cases of excessive oil leaks were reported, the primary causes being ruptured push rod housing gaskets and leaks around governor pads.
- (2) Turbo surging. Twelve cases of surging were reported at altitudes above 28,000 ft. One runaway turbo was reported.
- (3) Oil cooler regulators. Eight oil cooler regulators were reported as inoperative in automatic position.
- (4) Propeller governor. Eight propeller governors were reported inoperative (sticking).
- (5) Cylinder head temp gauge. Approximately 15 reported out.
- (6) Inverter. Three reported burned out.
- (7) Fuel shut off valve between bomb bay tanks. Five reported sticking.
- (8) Fuel pressure pumps. Six reports of low fuel pressure and three of high.
- (9) Internal engine failures. Two reported.
- (10) Defrosting system. Ten cases of frosting reported at high altitudes.
- (11) Swallowed valve. Two reported.
- (12) Fuel quantity gauges. 70% reported inaccurate.

b. Suggested changes in equipment.

- (1) Provide a method for determining a positive fuel flow and quantity during fuel transfer.
- (2) Provide a better defrosting system.
- (3) Provide accurate fuel gauges and fuel flow meters which are necessary for safe operation.
- (4) Recommend further tests on the present cylinder head temperature gauge.

4. Damage to Aircraft. (These figures do not include A/C sustaining self-inflicted damage.)

a. 497th Bomb Group

- (1) A Square-42
 - (a) Structural damage to fuselage and tail skid motor.
 - (b) Damage caused by flak.
 - (c) Estimated time of repair, three days.

b. 498th Bomb Group

- (1) T Square-49
 - (a) Bullet holes in vertical stabilizer
 - (b) Damage caused from enemy fire.
 - (c) Repair estimated as one day of sheet metal work.

SECRET

- 78 -

DECLASSIFIED

Authority UND760063

By PT NARA Date 8/26/05