

HEADQUARTERS
NINETY FIFTH BOMBARDMENT GROUP (H)
Office of the Group Commander

APO 634
26 July, 1943

SUBJECT: Letter of Transmittal.

TO: Commanding General, Fourth Bombardment Wing, APO 634.

1. Transmitted herewith analysis of Operational Mission 24 July, 1943.

JOHN K. GERHART
Colonel, Air Corps,
Commanding.

CLIFFORD B. GALT,
Major, Air Corps,
Operations Officer.

SECRET

BY R.L.S.

From:- Headquarters, Bomber Command.

BOMBER COMMAND INTELLIGENCE REPORT NO 3579 - 27 JULY 1943

RAID ASSESSMENT SUMMARY OF THE 26th JULY 1943

NORWAY.

TRONDHEIM: An immediate interpretation of photographs taken on 24th July after the U.S...A.F. attack earlier in the day, shows that nearly the whole weight of the attack fell on the N. side of the Ladehameren Basin. Smoke from fires still burning obscured a considerable area and many buildings are partly covered by smoke, but of the 6 workshops along the N. Quay, three are almost entirely gutted and the other three damaged. A large building near the N.E. corner of the basin has been damaged and two more large buildings nearby destroyed, while the gas-works appears to be on fire. The quays have been damaged in two places - that on the Eastern side having been burnt away for half its length, and part of the Northern quay appears to have collapsed. A Narvik class destroyer standing away from the quay may well have been hit, and a small vessel alongside the destroyer has been damaged. A floating dock is submerged at one end a small M/V has received a direct hit and is down by the bows and several smaller craft have been sunk or have capsized.

SICILY.

MESSINA: Photographs taken on 6th July after the attacks on 27/28th, 28/29th and 29/30th June show that the Main building of the Central Railway Station has again been hit. 6 sheds to the N.W. of the Marshalling Yard have been destroyed and a number of residential blocks in the area have been damaged. At the South end of the Marshalling Yard, a multi-bay factory building 450' x 250' has been badly damaged. In the S.W. part of the town, one barrack block of the Artillery Barracks has been hit and there is much damage to residential property.

The 450' M/V which was previously reported on fire in the Port has now sunk.

Distribution
As for previous report.

C. Moore
Flight Lieutenant,
Duty Intelligence Officer.

BOMBARDIER'S LOG

Trenchies, Norway Target Sea Level Altitude 0750 Take-off:

7-24-45 Date None Escort

Description and Remarks:

Target was identified first by smoke pots. Smoke screen was effective over target area except for the aiming point and the six work shops, which could be seen clearly. Bomb hits covered the complete area.

* Pressure Altitude of Target	-119	Type & Size	** of Bombs	800lbs. A.N. M45
* Altimeter Setting	30.05	** No. of Bombs Loaded	8	* Fuzing, Nose Tail
* Ind. Altitude	19,000'	** Initial Point	65° 41' N-09° 59' E	* Ordered Actual
* True Altitude above Target	19,150'	x Length of Run	100 Secs	x Time of Run
x Air Speed (MPH)	CIAS 155 TAS 212	* Mag. Head. Ordered	145°	x Mag. Head. Actual
* Ground Speed	* Est. 230 ** Actual 208	x Time of Release	14:15	** No. of Bombs Released
Drift	* Forecast + 5 x Actual - 4	Type Release	Train	Train Salvo Individual
* Actual Range		x Point of Impact	Target	(if seen)
x Tan Drop Angle	* Est. 59 x Actual 54.5	** Airplane Type	B-17F	No. 0226
x Dive Speed	148.8 x Thrust 53	** Pilot	THOMPSON, R.A. 1st Lt	
** Actual Time of Fall	36.02	** Navigator	NIX, T. J. 1st Lt	
		** Bombardier	JOHNSON, D.W. 1st Lt	

Height	Wind		Wind Velocity		Temp. Forecast	Temp. Actual	REMARKS:
	Direction	Speed	Est	Actual			
1000							
3000							
6000							
10000							
20000	290	58°	20	14	-20	-14	
25000							
24000							
26000							
30000							

TYPE OF RELEASE⁹ Individual Train Salvo Jettisoned Returned

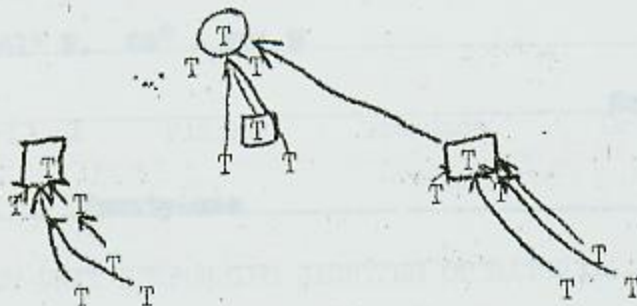
POINT OF IMPACT IF SEEN¹⁰ On target

NAVIGATION DATA¹¹

WINDS

ALTITUDE	DIRECTION		VELOCITY		TEMP C.	
	Est.	Actual	Est.	Actual	Est.	Actual
1000						
3000						
6000						
10000						
15000						
20000	290	59°	20.k	14.k	- 20.0	- 14° 0
25000						

METHODS OF BOMBING¹²



Bombardier making complete sighting operation

Bombardier making range operation only

Bombardier dropping on leader, with error indicating leader's position.



The high Squadron dropped on the lead squadron but also had a rate reading at all times.
 The low squadron dropped on their squadron leader, who was sighting for range

HEADQUARTERS
NINETY FIFTH BOMBARDMENT GROUP (H)
Office of the Group Bombardier

APO 634,
25, July, 1943.

SUBJECT: Bombardier's report on operational mission 24, July, 1943.

TO : Commanding Officer, 95th Bombardment Group (H), APO 634.

1. Bombing report.

a. The A.B.C. Computer in conjunction with the C-1 pilot was used as two aids to bombing technique. The A.B.C. Computer registered a 180° change of wind direction over the target.

b. Slight evasive action was employed after turning from the IP. before going on the bombing run.

c. The lead bombardiers had a perfect run amounting to 160 seconds.

d. Opposition on the bombing run was slight as far as enemy fighters were concerned. The flak was very slight and inaccurate.

e. The S-2 information concerning the target was good.

f. The prevailing weather conditions over the target was excellent. There was an estimated visibility of 30 miles and an unlimited ceiling.

g. There were no unusual tactics employed by the enemy.

h. Bombing results were reported as to have been good. Due to existence of smoke pots; some of the hits could not be seen.

i. There are no suggestions offered as to any changes in bombing technique on this particular target.

FRANK L. IMAND,
1st Lt., Air Corps,
Group Bombardier.

W.D.
 A.C. FORM
 12E Modified
 (Reproduced 4 B.W., APO 634)

COMBAT BOMBING FLIGHT RECORD¹

BOMBARDIER² JOHNSON, D. W. 1st Lt DATE 7-24-43
 PILOT² THOMPSON, R. A. 1st Lt TAKE-OFF 0750
 NAVIGATOR² WIK, T. J. 1st Lt LANDED 1951
 ORGANIZATION 336th Squadron 95th Group AIRPLANE B-17F 0226
Type Number
 OBJECTIVE³ Trendhjem, Norway
 AIMING POINT Middle of six machine shops in the dock area
 INITIAL POINT 65° - 41' N. 09° - 59' E
 METHOD OF ATTACK⁴ Individual Flight Squadron Group Wing
 NUMBER OF PLANES IN UNIT Twenty-one
 NUMBER OF PLANES IN EACH UNIT PERFORMING SIGHTING OPERATIONS Seven
 TIME OF ATTACKS⁵ 14:13-50 14:15
Time of Release
 APPROXIMATE LENGTH OF STRAIGHT APPROACH⁶ One Hundred
Seconds
 SYNCHRONIZATION⁷ On Fast Slow
Slow

INFORMATION AT RELEASE POINT⁸

ALTITUDE, TRUE ABOVE TARGET	<u>19,150</u>	Feet
C. K. A. S.	<u>156</u>	M.P.H.
T. A. S.	<u>212</u>	M.P.H.
WIND DIRECTION	<u>58°</u>	True
Wind Velocity	<u>14</u>	M.P.H.
True Heading	<u>150°</u>	Degrees
Drift	<u>-4</u>	Degrees
True Track	<u>154</u>	Degrees
D.S. <u>14.8</u> TRAIL <u>53</u> MTF <u>36.02</u> Ten. D.A. <u>54.5</u>		

SECTION HORNAM

FORM 3

DATE JULY 24

	SHIP	PILOT	TARGET	TIME OF EST.	TIME OF ACT.	LANDING EST.	LANDING ACT.	REMARKS
> 336	L 0926	THOMPSON			0823 ⁺		1958 ⁺	
> 336	C 0983	MASON			0824		1958 ⁺	
> 336	B 0983	O'NEAL			0824 ⁺		1957	
> 336	A 3153	ROTHSCHILD			0825		2000	
> 336	J 5918	REGAN			0826		2000 ⁺	
> 336	F 5893	ROBICHAUD			0825 ⁺		1959	
> 334	0918	TYLER			0826 ⁺		2002	
> 334	E 0182	NOTES			0827		2003 ⁺	
> 334	M 0045	McPHERSON			0828		2001 ⁺	
> 334	G 0219	THOMAS			0831 ⁺		2004 ⁺	
> 334	J 3582	SOUTH			0828 ⁺		2005 ⁺	
> 334	C 0300	LEMKER			0829		2004	
> 412	P 0322	ADAMS			0830		2007 ⁺	
> 412	S 0150	HODGES			0830 ⁺		2008 ⁺	
> 412	0150 3298	MASSEY			0831		2006 ⁺	
> 335	D 0194	HAMILTON			0831		1955	
> 335	0194 0274	BAKER			0832 ⁺		1955 ⁺	

COLLECTION HORRYA

FORM 3

DATE JULY 18

LEAF	SHIP	PILOT	TARGET	TIME OF		LANDING		REMARKS
				ESG.	ACQ.	ESG.	ACQ.	
✓ 335	W	0218	SNOW		0833		1954	
✓ 335	Z	0353	JOHNSON		0833 ⁺		2033 ⁺	
✓ 335	N	3264	FOUTZ		0834		2022	
✓ 335	W	0272	BROWMAN		0834		1956	
✓ 336	G	3277	MAUDIN		0835		1451 ⁺	Spoke
✓ 335	V	0142	FUTZI		0835 ⁺		1454	Spoke
23 total								

818

TRONDHEIM

July 14, 1943

BERGEN

LEAD

✓ Thompson ①
0226 C

✓ O'Neal ✓ Mason
0161 0283 C

✓ Rothschild
3153

✓ Robichaud ✓ Regan
5893 C 5918

LOW

✓ Hamilton ①
0194 C

✓ Snow ✓ Baker
0218 0274 C

Johnson
0353

✓ Broman ✓ Foutz
0272 C 3264

Mauldin
3277

Jutzi
0192

HIGH

✓ Tyler
0418 L

✓ McPherson ✓ Noyes
0045 C 0182 E

✓ Thomas
0219

✓ Lemke ✓ South
0300 C 3282 C

✓ Adams
0322 P

✓ Massey ✓ Hodges
3298 0150 J
3273

Extra Ships

3266 { 334th
335th

3273 { 336th
412th

Mauldin 3277 } Returned
Jutzi 0192 } No Abortive A/C

S18

TRONDHEIM

July 24, 1943

BERGEN

LEAD

✓ Thompson ①
0226 C

✓ O'Neal ✓ Mason
0161 0283 C

✓ Rothschild
3153

✓ Robichaud ✓ Regan
5893 C 5918

LOW

✓ Hamilton ①
0194 C

✓ Snow ✓ Baker
0218 0274 C

Johnson
0353

✓ Broman ✓ Foutz
0272 C 3264

Mauldin
3277

Jutzi
0192

HIGH

✓ Tyler
0418 L

✓ McPherson ✓ Noyes
0045 C 0182 E

✓ Thomas
0219

✓ Lemke ✓ South
0300 C 3282 C

✓ Adams
0322 P

✓ Massey ✓ Hodges
3298 0150 J
3273

Extra Ships

3266 {	(334th	Mauldin 3277 } Returned
	(335th	
3273 {	(336th	
	(412th	

HEADQUARTERS
NINETY FIFTH BOMBARDMENT GROUP (H)
Office of the Operations Officer

APO 634,
25 July, 1943.

SUBJECT: S-3 Narrative report of operational mission on 24 July, 1943.

TO : Commanding Officer, 95th Bombardment Group (H), APO 634.

1. The 95th Bomb Group was alerted at 1850, 23 July, 1943 for an operational mission, with a bomb loading of 8 x 500 pound bombs (GP), 1/10 second nose fuse and 1/100 tail fuse.

2. Field Order number 27 was received at 0030, 24 July, 1943. The 95th Group was set up to lead the 402nd Combat Wing in close support to the 403rd Combat Wing. Twenty-one aircraft were called for. Twenty-three crews were made ready, two to turn back if not needed at point of leaving England. There were no abortions and the two extra aircraft turned back at the English Coast giving twenty-one aircraft over the target. All aircraft bombed the target area, one aircraft failed to drop four of its bombs due to a mechanical failure and jettisoned them off the coast of Norway.

3. Flak was moderate and fairly accurate. None of our aircraft were hit.

4. The 95th bombs fell on the main point of impact the results of which are considered excellent. Fighter attacks on the 95th Group were light approximately twenty enemy aircraft were encountered. Group formation was good. Wing formation was good.

CLIFFORD E. COLE,
Major, Air Corps,
Operations Officer.

Authority WVD 745005
 By WVD NARA Date 7/14/71

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

H. L. L. L. L.
 818

HEADQUARTERS
 VIII BOMBER COMMAND
 A. P. O. 634

Bomber Command Narrative of Operations
 Day Operation - 24 July, 1943
 Mission No. 75

TARGETS: Magnesium, Aluminium and Nitrate Works at Heroya, Norway.
U-Boat Workshops and Harbor Installations at Trondheim, Norway.

For the first time, 309 B-17s were dispatched to attack three targets in occupied Norway. The mission-longest ever undertaken by B-17s of this command - was very successful as targets at Heroya and Trondheim were bombed with excellent results by 208 a/c. The third target was found to be cloud covered and no bombs were dropped. No fighter support was scheduled, and e/a opposition was weak. From the three operations only 1 a/c is missing, and this a/c which was damaged by flak and landed safely in Sweden.

Unit	(Dispatched)	Number of A/C		Abortive+	Lost	Claims	Personal Casualties		
		Attacking	B.				(Killed)	Wounded	Missing
<u>HEROYA</u>									
91	22	14	8	0	0	0-0-0	0	0	0
92	15 ^x	15 ^x	0	0	0	4-0-0	0	0	0
303	20	19	1	0	0	0-0-0	0	0	0
305	19	18	1	0	0	2-0-0	0	0	0
306	21	20	1	0	0	3-2-0	0	3	0
351	21	21	0	0	0	0-0-0	0	0	0
379	21	21	0	0	0	0-0-0	0	0	0
381	21	20	0	1	1	0-0-0	0	0	10
384	20	19	1	0	0	0-0-0	0	0	0
	<u>180^x</u>	<u>167^x</u>	<u>12</u>	<u>1</u>	<u>1</u>	<u>9-2-0</u>	<u>0</u>	<u>3</u>	<u>10</u>
<u>4th WING</u>									
<u>TRONDHEIM</u>									
95	21	21	0	0	0	2-2-3	0	1	0
100	<u>24</u>	<u>20</u>	<u>4</u>	<u>0</u>	<u>0</u>	<u>2-0-0</u>	<u>0</u>	<u>2</u>	<u>0</u>
	45	41	4	0	0	4-2-3	0	3	0
<u>UNATTACKED TARGET</u>									
94	21	0	0	21	0	0-0-0	0	0	0
96	21	0	1	20	0	0-0-0	0	0	0
385	21	0	1	20	0	0-0-0	0	0	0
388	<u>21</u>	<u>0</u>	<u>1</u>	<u>20</u>	<u>0</u>	<u>0-0-0</u>	<u>0</u>	<u>0</u>	<u>0</u>
	84	0	3	81	0	0-0-0	0	0	0
TOTALS	309	208	19	82	1	13-4-3	0	6	10

+ Abortive A. - Mechanical, equipment and personnel failures
 B. - Weather, enemy action.
 x Includes 1 YB-40

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

by NARA Date 2/14/71

PART 1 - 1st Wing

HEROYA - Magnesium, Aluminium and Nitrate Works

BOMBING RESULTS: 167 B-17s dropped 1657 x 500 GP fused 1/10 sec. nose and 1/40 sec. tail at 1317 to 1414 hrs. from 15000 to 17000 ft. The attack was very successful. Strike attack photos show a very heavy concentration of bomb bursts within the target area with an especially heavy concentration on the Magnesium and Aluminium plants. The following important installations were hit: at least two hits on the chlorination plant and probable direct hits on the electrolytic chlorine gas plant of the Magnesium plant; two hits on the Aluminium Oxide plant; the Aluminium plant area is completely enveloped in smoke and a large building, probably a foundry, has one or more direct hits; and three hits among the nitric acid absorption towers of the Nitrate Plant with a probable direct hit on one of the towers.

REASONS FOR FAILURE TO BOMB: 13 a/c failed to bomb - 8 because of failure to contact formation; 4 because of mechanical and equipment failure; and 1 which was forced out of formation when the plane directly ahead was hit by flak.

ENCOUNTERS: Enemy air opposition was weak. Only 4 of the 9 groups reported encounters which were with 5 to 15 e/a - mostly FW-190s, some ME-109s and 2 twin-engined e/a. Attacks on 2 groups started at 1355 hrs. after leaving enemy coast and continued out over the water for approximately 30 minutes. Attacks were made individually from the nose - 11 to 1 o'clock and from the tail - 5 to 7 o'clock, both high and low. The other 2 groups reported attacks, which were from the tail and high and began at 1415 hrs. and continued for about 30 minutes. The FW-190s had yellow noses, red noses, and white, silver or gray fuselages. ME-109s were mostly all black and the 2 twin-engined e/a were silver colored.

CASUALTIES: Personnel - 2 seriously wounded, 1 slightly wounded and 10 missing. (Interned in Sweden).

Equipment - 1 B-17 damaged by flak landed in Sweden.

Estimated Battle Damage - 27 category "A", and 2 category "AC".

FLAK: Meagre to moderate flak - generally accurate for height but poor as to deflection - was encountered from Brevik to the target at Kristiansand, and at Mandal.

ROUTE: Bases to Splasher No. 5 to 58°10'N-08°50'E to I.P. at 58°52'N-09°35'E to target; to Splasher No. 4 to bases. The 384th Group reached the Norwegian coast 20 miles left of briefed course and followed coast line to the target area. The 379th Group did not hit the I.P. but made a 360° turn over the target before going in. The 305th and 306th Group overran the target and bombed on returning. The 92nd Group saw 10/10 cloud west of the target, swung around and came in from the northeast.

WEATHER: Route Out - Over the North Sea cloud became 8 - 10/10 before the half way mark was reached, but there were occasional breaks to 5 - 6/10 which enabled a/c to see the sea. Cloud remained 8 - 10/10 until about 50 to 100 miles before the target when it became 10/10 with no breaks. At the Norwegian coast, the clouds broke and became clear inland. No medium or high cloud. Target - Clear of cloud with unlimited visibility. Return Route - Similar to route out,

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except that cloud broke to 5 - 6/10 about halfway back and decreased to about nil when about 200 miles from English coast. Remained generally clear to bases.

OBSERVATIONS: About 14 tankers were seen in the harbor at Kristiansand. Near this city a clearing large enough for a runway was observed near an old river bed on the east side of the bay. Balloons were sighted over what may have been Oslo. An airfield with a large four engined plane on it was seen east of Herøya.

PART II - 4th Wing

TRONDHEIM - U-Boat Workshops and Harbor Installations

BOMBING RESULTS: 41 B-17s dropped 324 x 500 GP fused 1/10 sec. nose and 1/40 sec. tail from 19,000 - 20,100 ft. on the U-Boat workshops and harbor installations at Trondheim, Norway with good results. PRU photos taken the same day of the attack show a heavy concentration of bursts on the N. side of the Ladehameren Basin with fires still burning. Of 6 workshops along the N. Quay, 3 are nearly gutted and the remainder damaged with some still on fire. A large building near the N.E. corner of the Basin is damaged, two other large buildings nearby destroyed, and the gasworks appears to be on fire. Damage to shipping includes several probable hits on a Narvik destroyer and a small vessel alongside, damage to a floating dock, a direct hit on a small M/V, and several smaller craft are either capsized or sunk. There were several bursts in the W. dispersal area of the Trondheim/Lade airfield with 2 shelters seen damaged. Many burst are also seen in the barracks area between the Basin and the airfield.

84 B-17s dispatched to attack another target in Norway were unable to bomb due to 10/10 cloud over target.

REASONS FOR FAILURE TO BOMB: 89 a/c failed to bomb because of mechanical failures; 76 because of adverse weather; and 6 because they couldnot locate group formation.

ENCOUNTERS: Only the 2 Groups attacking Trondheim had encounters. Approximately 30 non-persistent attacks were made by 15 c/a which consisted of FW-190s, ME-109s and one twin-engined fighter. The attacks, which began at 61°00'N-04°45'E on the way to target, lasted about 20 minutes, with most of the attacks being made by single c/a from 6 o'clock and above. The other Groups reported seeing 15 unidentified c/a in the target area. These c/a did not attack.

CASUALTIES: Personnel - 3 crew members were slightly wounded.
Equipment - None.
Estimated Battle Damage - 8 category "A", 1 "AC", and 1 "E".

FLAK: Moderate accurate flak was encountered at Trondheim, with meagre accurate flak coming from ships in Molde Fjord and meagre inaccurate at several points along the route.

ROUTE: Trondheim: Splasher 4, to 60°30'N-04°00'E, to Nordbotn, to 63°43'N-09°59' to target; to Eggen, to 63°16'N-10°48'E, to Ervik to bases.

Unattacked Target: Splasher 4, to 60°07'N-06°20'E, to cloud covered target to bases.

WEATHER: Trondheim: On route out from English coast 6/10 - 8/10 stratocumulus at 2,000 ft gradually increased to overcast about 150 miles from coast of Norway, where it broke rapidly to a few scattered cumulus over land. Trondheim was clear of all cloud and has 20 miles visibility. On return route cloud was considerably less than on route out.

Unattacked Target: Moderate cloudiness over England increased over North Sea, becoming generally 10/10 over Norwegian coast. Over target there was 10/10 stratocumulus at 3200 ft. with slight breaks, with cloud breaking to 5/10 NE of target. Visibility was unlimited. On return route cloud gradually decreased becoming 2/10 - 3/10 over England.

OBSERVATIONS: An effective smoke screen was reported operating at Trondheim. 8 - 10 seaplanes were observed in harbor 1 1/2 miles NE of target at Trondheim.

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File 4917
Mission folders

OFFICE OF THE INTELLIGENCE OFFICER
USAAF STATION 119

25 July 1943.

SUBJECT: Photo Interpretation--Trondheim Raid *24 July*
TO : Commanding Officer, 95th Bombardment Group (H).

1. Interpretation of the three photo strips of the raid on Trondheim, Norway on 24 July 1943 is most difficult because of the smoke screen being laid by eight small boats in the Fiord and by smoke pots along shore, and smoke from bomb bursts of the preceding group. The bomb bursts, however, completely smother the area of the six workshops, the large merchant vessels being used as a workshop along the wharf (photo of 26 March 1943), and a heavy anti-Aircraft battery on the crest of the hill north of the target (photo of 29 Sept. 1943).
2. Within the bomb bursts seen in photo SAV-95-56-59 is an explosion followed by dense black smoke in the next photo. Oblique photos SAO-95-34-9 and 11 verify this hit on some volatile fuel.
3. A heavy six-gun anti-aircraft battery surrounds a light-house on an island 513' in diameter, located 6460' from the target in the Fiord.
4. In the south corner of the airdrome east of the target are six fighter aircraft and 1 He.111.

For the Intelligence Officer:

ARNO A. KRAUSE,
1st. Lt., A.C.
Photo Interpreter.

Slaw
782

SECRET
(American CONFIDENTIAL)
3rd Sept. 1943

INTERPRETATION REPORT NO. K.1688

Photographs taken by 540 Squadron

<u>Sortie</u>	<u>Date</u>	<u>Scale</u>	<u>Mean time of Photography</u>
N/888	24 July. 43	1/8,900 (F.L. 36")	1750 hours
N/918	31 Aug. 43	1/9,000 (F.L. 36")	1050 hours

LOCALITY: TRONDHEIM

DAMAGE ASSESSMENT

COVER AND QUALITY

The assessment has been made from N/918 which covers the whole of TRONDHEIM and the dock area on prints of good quality (Scale 1/9,000). N/888 covers the submarine base, but smoke obscures a considerable area N. of the Ledehammeren Basin (Scale 1/8,900).

PERIOD UNDER REVIEW

These photographs were taken after the attack of 24th July, 1943 by a/c of U.S.B.C. The last report on damage was Immediate Interpretation Report No. K.1688 issued on 3rd September, 1943.

STATEMENT ON DAMAGE

The main weight of this attack seems to have fallen to the N. of the Ledehammeren Basin. Of the six workshops along the N. Quay, four are gutted and the remaining two have suffered damage by blast. Two nearby quayside buildings have been very severely damaged and four sheds on the pier W. of the submarine pens, have been destroyed.

Some 2 - 300 yds. further East, the Gasworks has been extensively damaged. The gasholder has a large hole in the roof and 5 other buildings have been destroyed; 1 large, 7 medium and 11 small buildings adjoining or close to the Gasworks, have also been destroyed or severely damaged.

On the Lede airfield, a dispersal shelter has been 1/3 destroyed by a near miss, but N/918 shows this damage to have been made good.

DETAILS OF DAMAGE

(References relate to annotations on portions of prints 3040 Neg. No. 29,450 and 4041 Neg. No. 29454)

PRINT 3040

1. Submarine workshops: 4 gutted, 2 slightly damaged.
2. U-Shaped submarine workshop: 1/3 destroyed, roof of remainder damaged.
3. Large building probably warehouse: 2/3 destroyed.

5. Two medium sized workshops: gutted.
6. Areas of wooden quay: burned.
7. Two sheds on main portion of new pier: destroyed.
Two or three sheds on extension of new pier: destroyed.
8. 16 residential units or huts: destroyed or severely damaged.

PRINT 4041

1. GASWORKS

- Gasholder: wrecked by direct hit.
 - 1 large building: destroyed.
 - 4 medium sized buildings: destroyed.
 - Concrete building at W. side of works: 2/3 severely damaged.
 - Retort house: damage at W. end.
 - Adjoining building: roof stripped.
2. One large workshop: slight damage at E. end.
One medium sized workshop: destroyed.
 3. Unidentified factory building: damaged at N. end by direct hit and possible slight damage by fire.
 4. One medium sized building: 1/3 destroyed.
Four medium sized buildings: destroyed or severely damaged.
 5. Medium sized shed attached to water tank: destroyed.
 6. One medium sized building: destroyed.
One medium sized building: roof damaged.
Large building: area of 400 sq. yds. along one side damaged.

Parts of prints 3040 and 4041 distributed.
Plan used: C.I.U. Plan No. 413.

SECRET

R.A.F. STATION
MEIKINHAM

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DISTRIBUTION NO. 24

E: 139
I: 33
172 copies.

1. Merrill
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(American CONFIDENTIAL)
3rd Sept. 1943.

IMMEDIATE INTERPRETATION REPORT NO. K.1633.
(Subject to amplification and correction from a more detailed assessment)

Photographs taken by 540 Squadron on 31st Aug. 1943.

Mean time of photography: 1050 hrs.

SORTIE: N/910

SCALE: 1/9,000 approx. (F.L.36")

LOCALITY: TRONDHEIM.

DAMAGE ASSESSMENT.

COVER AND QUALITY.

The whole of TRONDHEIM and dock area is covered as well as the LADE airfield on prints of good quality (scale 1/9,000).

PERIOD UNDER REVIEW.

These photographs were taken after the attack of 24th July, 1943 by A/C of U.S. Bomber Command. The last report on damage was Immediate Interpretation Report No. K.1622 relating to Sortie N/888 taken shortly after the attack of 24th July, 1943.

PROVISIONAL STATEMENT ON DAMAGE.

The damage previously reported in Report K.1622 relating to the quay, workshops and buildings is confirmed. In addition it is now seen that four of the six workshops along the N. Quay are gutted, a fifth buckled by blast, and the sixth workshop is slightly damaged. A tower between the workshops is seriously damaged. Two thirds of a large dockside building is demolished and another is nearly half destroyed with the remainder damaged. At two additional points on the N. and E. quays, damage is confirmed by repairs in progress.

On the pier West of the submarine pens four small sheds are gone. The Gas Works is seriously damaged. A direct hit wrecked the large gas holder, and one large and a medium buildings are destroyed. The retort house is damaged, a portion of the ramp was severely damaged and the roof of adjoining building is stripped. Direct hits destroyed a number of sheds in the yard.

Adjoining the Gasworks to the West, at least three direct hits severely damaged a large concrete building which was seen burning in Sortie N/888.

/On the North

SECRET.

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On the North and West sides of the Gasworks 4 medium workshops and 7 small sheds were destroyed or gutted and one half of medium workshop destroyed and the end of another damaged by a direct hit. To the North an unidentified factory received direct hit on one corner and slight blast damage over the remainder.

South of the Gasworks a medium building is a third destroyed by a direct hit and 4 small buildings destroyed or severely damaged. A half mile to the East of the Ladohameren Basin a direct hit damaged a portion of large factory building; a medium building is destroyed and roof of one repaired; another has slight roof damage.

To the North of Ladohameren is a concentration of craters and 16 houses, huts and small buildings are destroyed or severely damaged.

No print distributed.
Plan used - C.I.U. Plan No. 413.

DISTRIBUTION NO. 24.

E: 139 I: 33 Total: 172

SECRET.

R.A.F. Station,
Hedhamham.
A.J.M./M.C.I./B.

SAV/95/32.	24.7.43.	1412 hrs.	1/29,000	(F.L.8")	19,300'	'A'
SAV/95/33	24.7.43.	1412 hrs.	1/28,500	(F.L.8")	19,000'	'A'
SAV/95/34.	24.7.43.	1412 hrs.	1/32,500	(F.L.7")	19,000'	'A'
SAV/95/35.	24.7.43.	1412 hrs.	1/32,500	(F.L.7")	19,000'	'B'
SAV/95/36.	24.7.43.	1412 hrs.	1/19,000	(F.L.12")	19,000'	'A'
SAV/100/11.	24.7.43.	1414 hrs.	1/30,400	(F.L.8")	20,300'	'A'
SAV/100/12.	24.7.43.	1414 hrs.	1/30,000	(F.L.8")	20,000'	'B'
SAV/100/13	24.7.43.	1414 hrs.	1/35,500	(F.L.7")	20,200'	'A'
SAV/100/14.	24.7.43.	1414 hrs.	1/35,500	(F.L.7")	20,300'	'A'
SAV/100/15.	24.7.43.	1414 hrs.	1/35,600	(F.L.7")	20,500'	'A'

(i) INFORMATION RECEIVED ON THE ATTACK.

(a) These photographs were taken during a daylight attack on TRONDHEIM by U.S.B.C. aircraft. 40 aircraft attacked the target in two waves.

(b) 316 x 500 lb. G.P. bombs were dropped.

(c) The aircraft were not escorted by fighters.

(ii) BOMB BURSTS OBSERVED.

(a) The photographs show that the main weight of the attack is concentrated in an area at the North Eastern part of the Ladehameren Basin, and in the vicinity of the Gasworks, both to the E. of the U-Boat shelters.

(b) Smoke from the bomb bursts, coupled with the smoke screen, which is seen in action in many parts of the port, town and surrounding areas, make an accurate count of actual explosions difficult.

ANNOTATED PRINT NO. I (SAV/100/14. Photo. 43).

A. A number of bursts are seen in the area covered by the Gasworks E. of Ladehameren Basin.

B. A large concentration of bursts on the probable workshops on the wooden quayside at the N.E. end of the Ladehameren Basin. Earlier prints show direct hits on at least three of the workshop buildings. Many bursts are seen on the quaysides and in the Basin.

C. A number of bursts seen in the water and near floating timber at the entrance to the Ladehameren Basin.

D. A heavy concentration of bursts seen in the wooded and slightly built up area E. of the probable workshops.

E. At least 8 bursts seen in the Western Dispersal area of TRONDHEIM/LADE airfield. A direct hit on one of the open shelters is seen.

ANNOTATED PRINT NO. II (SAV/95/36 Photo. 68).

Shows further stages in the bomb bursts reported on in Annotated Print I. above.

F. Bombs bursting in the entrance to Ladehameren Basin, probably from the second wave of the attacking force.

G. A further stage of E. above.

/H. Shows the heavy

SECRET.

Page 2.

- H. Shows the heavy concentration of bursts in the target area at a later stage than seen in A, B and C of Print I.

ACCOMPANYING PRINTS.

- a) Annotated Print No. I is being generally distributed with this report.
- b) An approximate Bomb Plot of the target area - showing the position of well defined bursts and the area of heavy concentration is being generally distributed.
- c) A plan showing the approximate positions of the smoke screen, where seen is also generally distributed.

SECRET.

R.A.F. STATION,
MEDMENHAM.

JGDC/A/JMF/B.

DISTRIBUTION NO. 11.

Plus C. in C. Royal Norwegian
Forces 4

E: 121

I: 20

Total: 145.

IMMEDIATE INVESTIGATION REPORT NO. K. 1622.

(Subject to correction and amplification from a more detailed assessment).

Photographs taken by 540 Squadron on 24 July 1943.

Mean time of Photography: Not yet available.

SCAFFE: N/868

SCALE: 1/8,900 (F: 33")

LOCALITY: TRONDHEIM.

DAMAGE ASSESSMENT.

COVER.

Although only selected prints from this sortie are yet available, the submarine base is covered. Smoke obscures a considerable area immediately N. of the Ladehavnoren Basin.

PERIOD UNDER REVIEW.

The photographs were taken after the attack of 24 July 43 by a/c of U.S.A.A.F.

PROVISIONAL STATEMENT ON DAMAGE.

Practically the whole of this attack appears to have fallen on the N. side of the Ladehavnoren Basin where fires are seen to be burning still.

Out of the six workshops along the N. Quay, three are nearly gutted and the remainder damaged, ~~some~~ **some of these** are still on fire. A large building near the N.W. corner of the basin is damaged, two more large buildings nearby destroyed, and the gasworks appears to be on fire. Most of the buildings are partly covered by smoke.

The quays are damaged in two places. That on the Eastern side being burnt away for half its length and part of the Northern quay appears to have collapsed.

Damage to shipping includes several probable hits on a Narvic destroyer (type 2) which is seen to be standing away from the quay and a small vessel alongside her appears to be damaged on her stern. A floating dock is submerged at the N. end. Apart from this a small H/V has had a direct hit on her bow and is down by the bow, and several smaller craft are either capsized or sunk.

The available prints from this sortie do not cover the Lade A/F fully, but two a/c shelters are seen to be damaged.

No print distributed.
Map used - C.B. plan.

SECRET

DISTRIBUTION NO. 24.

R.A.F. SECTION,
TRONDHEIM.

B: 135
I: 34

HEADQUARTERS
NINETY-FIFTH BOMBARDMENT GROUP (H)
APO 634

24 July 1943

SUBJECT: S-2 Report.

TO : Commanding Officer, 95th Bomb Group (H), APO 634.

1. 21 A/C took off from the base at approximately 0823 to bomb the submarine repair shops at Trondheim, Norway. All A/C bombed the target area, one A/C #219 failed to drop four bombs due to mechanical difficulty and jettisoned them off the coast of Norway. The results of the bombing are considered excellent.

2. Approximately 20 E/A were encountered and our A/C claims five destroyed and three probably destroyed. The AA fire encountered over the target was moderate and fairly accurate. Elsewhere along the route the AA fire was meager and inaccurate.

3. There was slight battle damage to our A/C and one Navigator, 2nd. Lt. E.W. Gould, was wounded by fragments from the burst of a 20MM shell. All A/C landed at the base at approximately 2000.

FLORENCE J. DONOHUE
Major, Air Corps,
Intelligence Officer