WAR DEPARTMENT
A. A. F. Form No. 14
(Revised May 1, 1942)

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WAR DEPARTMENT
STATION A-55
U. S. ARMY AIR FORCES

ACCIDENT No. 45-1-2-527

REPORT OF AIRCRAFT ACCIDENT

(1) Place 3 miles north of Station A-55 (2) Date 2 January 1945 (3) Time 0843

AIRCRAFT: (4) Type and model A-26B-20 (5) A. F. No. 41-39214 (6) Station A-55

Organization: (7) 9th BD-Ninth AF (8) 416 Bomb (L) (9) 668th Bomb (L)
(Command and Air Force) (Group) (Squadron)

PERSONNEL

DUTY (10)	NAME (Last name first) (11)	RATING (12)	SERIAL NO. (13)	RANK (14)	PERSONNEL CLASS (15)	BRANCH (16)	AIR FORCE OR COMMAND (17)	RESULT TO PERSONNEL (18)	USE OF PARACHUTE (19)
P	Lackner, Ralph J.	P	0-760872	2nd Lt.	18	AC	Ninth AF	Slightly	None
G	Musarra, Anthony J.	G	13106490	Cpl.	38	AC	Ninth AF	Slightly	None

PILOT INVOLVED IN ACCIDENT

(20) Lackner, (Last name) Ralph (First name) J. (Middle initial) (21) 0-760872 (Serial number) (22) 2nd Lt. (Rank) (23) 18 (Personnel class) (24) AC (Branch)

Assigned (25) 9th BD-Ninth AF (Command and Air Force) (26) 416 Bomb (L) (Group) (27) 668 Bomb (L) (Squadron) (28) A-55 (Station)

Attached for flying (29) - (Command and Air Force) (30) - (Group) (31) - (Squadron) (32) - (Station)

Original rating (33) Pilot (Rating) (34) 12/5/43 (Date) Present rating (35) Pilot (Rating) (36) 12/5/43 (Date) Instrument rating (37) 6/10/44 (Date)

FIRST PILOT HOURS:
(at the time of this accident)

(38) This type A-26	21:45	(42) Instrument time last 6 months	3:00
(39) This model A-26B	21:45	(43) Instrument time last 30 days	0:00
(40) Last 90 days	27:10	(44) Night time last 6 months	5:10
(41) Total	580:05	(45) Night time last 30 days	0:00

AIRCRAFT DAMAGE

DAMAGE					(49) LIST OF DAMAGED PARTS
(46) Aircraft	0				Underside fuselage torn. Both wings damaged
(47) Engine(s)	0	0			Sudden stoppage. Cylinders torn out.
(48) Propeller(s)	0	0			Both props bent.

(50) Weather at the time of accident Unpredictable local weather phenomena which caused excess frost. Visibility 800 yards due to fog. No ceiling.

(51) Was the pilot flying on instruments at the time of accident No

(52) Cleared from Station A-55 (53) To Station A-55 (54) Kind of clearance Combat

(55) Pilot's mission Combat

(56) Nature of accident Wheels up emergency landing immediately after take-off.

(57) Cause of accident Weather - Unpredictable weather caused severe icing on wings, and possible carburetor ice.

(58) Has the Form 54 been submitted? No

Incl. 1 Abstract 3-8-45

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16—28757-1

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DESCRIPTION OF ACCIDENT

(Brief narrative of accident. Include statement of responsibility and recommendations for action to prevent repetition)

NARRATIVE:

On 2 January 1945, 2nd Lt. Ralph J. Lackner took off on a combat mission in A-26B-20 aircraft, serial no. 41-39214. On the take-off run, both engines developed full RPM and manifold pressure; however, the airplane seemed very sluggish and did not feel as though it had proper lift. At about 130-140 MPH IAS the aircraft left the ground and the pilot raised the wheels and brought the flaps up slowly. By this time, the windshield and armor glass had frosted over completely and the pilot was flying entirely on instruments. Normal climbing speed was attained but shortly after, the aircraft became mushy and the airspeed dropped back to 150 MPH. Pilot increased power setting, but stated that propellers didn't seem to be producing normal thrust. At this time, he hit the prop-wash of the aircraft in front and the manifold pressure on the left engine slowly dropped back to about 5 inches Hg without sputtering, backfiring or change in throttle setting. Unable to hold altitude and safe airspeed on one engine, pilot made wheels -up emergency landing in an open field about 2½ miles north of the airdrome.

Inspection of the left engine following the accident did not reveal any mechanical or materiel failures which would cause sudden engine failure. From all the facts on hand, it is the opinion of this committee that the engine failure was caused by formation of carburetor ice, indicated by the steady loss of manifold pressure without backfiring, sputtering or change in throttle settings as reported by the pilot. It is also believed that the pilot did not have sufficient time to apply carburetor heat in an attempt to dissipate this ice formation before the aircraft mushed to the ground.

RESPONSIBILITY

Weather. Unforseen weather phenomena conducive to frost forming caused much frost to be formed on wings, fuselage, and cockpit glass between start engines and take-off time. The rapidity of the forming of frost and the extent to which any frost formation influences the airfoil characteristics of the new laminar flow wing were greater than had been anticipated from past experiences.

RECOMMENDATIONS:

At any time both fog and under cooling temperature exist, extreme caution should be exercised in reaching a decision as to clearance of even an operational mission. This should include careful observation of any frost formation, and is particularly applicable when aircraft with the sensitive laminar flow airfoil section are concerned.

It is also recommended that some system or equipment be devised which will insure that any frost formed during taxiing will be removed prior to take-off run.

INCLOSURES: 6

Incl. #1 - Statement of Pilot.
Incl. #2 - Statement of Gunner.
Incl. #3 - Statement of Weather Officer.
Incl. #4 - Statement of Engineering Officer.
Incl. #5 - Statement of Crew Chief.
Incl. #6 - Photographs.

482

APPROVED:

Theodore R Aylesworth

-1-

THEODORE R. AYLESWORTH,
Colonel, Air Corps,
Commanding.

William J. Meng

Signature
WILLIAM J. MENG, Lt. Col., Air Corps,
(Investigating Officer)

Robert A. Clark

ROBERT A. CLARK, Major, Air Corps,

Kenneth T. Roney

KENNETH T. RONEY, Major, Air Corps.

Date 6 January 1945

U. S. GOVERNMENT PRINTING OFFICE 16—28757-1

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2 January 1945

S T A T E M E N T

Upon inspection of the aircraft, A-26B-20, #41-39214, prior to starting the engines, there was no ice present on the wings, control surfaces or propeller. The windshields however, were completely frosted over although the crew chief had previously attempted to clean them with a de-icing solution and the Aldis lamp. During the engine run-up, I found the aircraft to be in fine operating condition as far as engines and instruments were concerned. The fuel selectors were properly and tightly seated in their respective positions; I checked this twice before leaving the hard-stand.

At taxi time, I was able to melt a small amount of frost from the windshield and so I followed the lead airplane out to the runway. Difficulty was encountered along the taxi-strip since the windshield froze over again as soon as the heat from the Aldis lamp was removed.

Just prior to take-off, the engines were run-up again and were found to be operating properly, the fuel selector valves were checked again just before I taxied out to take-off position. Before starting to roll, I rubbed the windshield and armor glass with my gloves in a last attempt to clear the glass but they misted up again almost immediately.

Taking off, I encountered no difficulty drawing the proper manifold pressure and R.P.M. The aircraft seemed very sluggish and at first felt as though it wouldn't leave the ground so I held the nose down to build up an airspeed of about 130-140 M.P.H. Halfway down the runway, the windshield and armor glass completely froze over and so I went entirely on instruments. When I was airborne, I raised the wheels and milked up the flaps slowly. The airspeed started to build up safely and I climbed without difficulty.

Shortly after this, the airplane became very mushy on the controls and my airspeed started to drop rapidly to about 150 M.P.H. An increase of power didn't help since the propellers didn't seem to be pulling as normal. As I hit the prop wash of the airplane in front of me, the left engine completely failed. There was no sputtering of any kind as the manifold pressure started to drop down to about 5" hg. Not being able to maintain altitude nor airspeed with the heavy bomb load and on single-engine, the aircraft started to mush. The artificial horizon failed and so I had to fly by needle-ball and airspeed.

Through the small panel on the side of the cockpit, I was able to see the ground. (This window remained open all the time previous to take-off and so was not frosted as heavily as the other glass surfaces.)

With the slow airspeed I was able to maintain my heading only by using almost full right rudder and judged my altitude through the side window. I brought the control wheel back just as we hit the ground and so the airplane crashed in a nose-high attitude. While still skidding, I cut all electrical switches of the aircraft.

When the airplane stopped, I attempted to open the hatch but found it to be jammed. The emergency release also failed. Cpl. Musarra, my gunner, forced the hatch and dragged me out. The right engine was burning. My right foot was hurt from the crash so I was unable to walk. Cpl. Musarra got us both away from the burning Airplane, for we were afraid the gasoline tanks would explode.

/s/Ralph J. Lackner
/t/RALPH J LACKNER,
2nd Lt, Air Corps,

482

A TRUE COPY:

Gerald M. McNulty

GERALD M. MCNULTY,
Captain, Air Corps.

-2-

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Incl. 1.

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2 January 1945

S T A T E M E N T

I reported to the aircraft and prepared for flight by inspecting the turret and pulling the bomb pins. The crew cleaned the canopy, which re-frosted instantly. In taxiing to the runway, I cleaned the top sight several times. At take-off, I was looking through the sight. When we were airborne, the airplane seemed sluggish, so I locked the turret. I could feel the propwash of the preceding airplane, and felt our airplane mushing. At that moment, the left engine cut out without warning, so I braced my feet and the flat of my hands to the sides. The next thing I knew, we were bouncing along the ground, leaving a path of flame behind us. The turret broke loose and swung around, ramming against my leg. I pushed it clear, pulled off my flak suit, released the hatch, and climbed out. I scrambled along the top of the airplane to the cockpit, and saw the release handle sticking up, but the canopy was still closed. I forced the hatch open and pulled the pilot out. We left the airplane together, which was burning on the right engine. That is all I observed, for all I wanted was for us to clear the airplane.

In finishing, I think Lt Lackner showed coolness and good judgement, and in my estimation, made a good crash landing under difficult circumstances. The airplane we were in was A-26B-20, AAF No. 41-39214.

Anthony J. Musarra

Anthony J. Musarra,
Cpl 13106490

482

-3-

Encl #2

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STATION WEATHER OFFICE
STATION A-55

APO 696, U.S. Army
5 January 1945

SUBJECT: Weather Report - Aircraft Accident Investigation.

TO : Director of Weather, Headquarters, Ninth Air Force, APO 696, U.S. Army.

THRU: Staff Weather Officer, Headquarters, IX Bombardment Division (M), APO 140, U.S. Army.

1. Three A-26's of the 416th Bomb Group (L), crashed during a mission take-off from Station A-55 between 0843 and 0907 hours, 2 January 1945. A complete investigation was made by the Station Weather Officer.

2. The synoptic weather situation was a ridge of high pressure from the Atlantic extending over all bases, targets and England. A weak warm front at 0700 hours was located through central Denmark, Manston, Cherbourg and Brest and was moving southeastward at 15-18 mph. Weak warm frontal conditions were expected to move into the local area during the late afternoon.

3. Nil clouds had been present and visibilities had been 2 to 3 miles during the night. Visibilities during the morning were expected to be generally 1-2 miles except 1000-2000 yards in scattered light fog patches.

4. The local weather recorded at this station was as follows:

	0600	0700	0800	0900	1000
Visibility	2 miles	2 miles	2 miles	550-1100 yards	100-250 yards
Temp/D.P.	21/21	19/19	20/20	20/20	23/23
Sfc. Winds	Calm	Calm	350°/1-3	280°/1-3	Calm
Clouds	None	None	None	1/10 Medium abv 10,000 feet.	3-4/10 Medium abv 10,000 ft.

The two other group stations within this wing had visibilities of 2-3 miles all morning and no fog patches, but visibilities at A-55 were restricted by fog patches and haze throughout the morning.

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5. Engineering Officers stated that "Kill-Frost" had been used on all planes prior to engine starting time to remove the heavy frost which had accumulated on the planes during the night. The planes began to taxi out at 0754 hours and heavy fog patches, base 15 feet, tops 75-100 feet, seemed to roll in from the southwest at 0805 hours, giving visibilities estimated to be 150-200 yards. Windshields frosted over rapidly and planes had difficulty in taxiing into position. Pilots did not mention ice formation upon wings to Operation or Weather personnel because windshield frost and fogginess prevented its detection.

6. Visibility was at its poorest (150-200 yards) when the first two ships successfully took off at 0824. After a very slight delay, visibility improved to 800-1200 yards and the other planes continued to take off. Three of the planes crashed at the end of the runway on take-off; one exploding immediately and one exploding a little later.

7. The Aircraft Accident Committee held an extensive meeting and detailed discussion of the accident on the afternoons of 2 January and 4 January 1945. Besides the usual members, pilots and gunners of two of the planes that crashed, plus pilots of some of the planes that had taken off on the mission, as well as technichal representatives were present.

8. All pilots agreed that their planes felt heavy and extremely sluggish at take-off. It was only with difficulty that most of them got the planes into the air. The planes simply would not take off with the normal take-off speed and most of the runway was needed to get them into the air. Only one pilot noticed his manifold pressure drop and that was due to complete power failure of one engine. This indicates possible carburetor icing in this one case.

9. Due to frost on the windshields, most of the pilots followed instrument take-off procedures and therefore outside visibility was not considered as a hazard to their take-off. All pilots claimed mushing and settling of their planes. One of the pilots that crashed had kept his windshield clear by use of a heater and even though he got his plane into the air, he had to put it down on the end of the runway because he felt that it just wasn't going to fly.

10. Temperature and dew point were both at twenty (20) degrees Fahrenheit during the period of time under consideration. Winds were very light and nil clouds were present. Undoubtedly, super-cooled water droplets were present under such conditions.

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As the planes warmed their engines, slight air disturbances and dust particles could easily have caused these super-cooled droplets to form fog, ice and/or frost. This was noticed in that the patchy fog (base 15 feet, tops 75-100 feet) swept across the field and also that several planes which had not taken off because of the frost on the windshield were later found to have a coating of ice upon wings and propellers.

11. Tech Inspectors stated that the shape of an A-26 wing made it possible that a slight amount of frost or ice would greatly affect the air flow and aerodynamic qualities of the wing. A-20's were not so greatly affected. No mention of frost or ice by the pilots was made prior to take-off mainly because windshield frosting prevented any detection of possible icing on wings and propellers. Carburetor icing was considered but generally eliminated because all pilots, except the one with one engine failure, considered motor performance normal.

12. The Committee, after hearing all of the evidence, believed that visibility was not a main factor in the accidents. Icing and frost upon wings and propellers was felt to have been the main cause of the accidents. The frost and ice must have accumulated during the interval from "Kill-Frost" time at hardstand to take-off time. This interval varied from 1 to 2½ hours.

13. It previously had not been suspected that rapid enough accumulation of ice or frost could be picked up during this interval to greatly hinder the planes in taking off. Undoubtedly under this unusual case, sufficient icing was accumulated upon wings and propellers during this interval and greatly hindered the planes in taking off. The possibility of the planes getting into the air in spite of the icing, providing the pilots had visibility through windshields and had not been taking off on instruments, was also discussed.

14. In the future, all planes will receive a complete check at the apron of the runway prior to take-off when weather conditions are conducive to icing. It was also anticipated that windshield heaters be installed in each plane.

15. An additional and unusual weather condition was observed after the time of the accidents when several officers noticed very fine ice flakes floating earthward from a clear sky at approximately 1000 hours. Concussion or impact caused by the explosions prior to this time was given as a possible explanation for the precipitating or settling out of these ice particles.

Henry W. Chidley
HENRY W. CHIDLEY
Capt., Air Corps
Station Weather Officer

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Encl #3

2 January, 1945

STATEMENT

I have made thorough investigation and determined that all possible precautions had been taken to fit this airplane, A-26B-20 AAF No. 41-39214, for safe flight prior to take-off and no mechanical defects existed other than those shown on the AAF Form 1A.

Arnold A. Harrison
ARNOLD A HARRISON,
Captain, Air Corps,
Engineering Officer.

482 - 7 -

Incl #4

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2 January 1945

STATEMENT

I hereby certify that all necessary inspections and maintenance had been performed and all defects were properly shown on AAF Forms 41B and AAF Forms 1A prior to the last flight of airplane A-26B-20, AAF No. 39214:

James A. Brabham

James A. Brabham,
T/Sgt., Crew Chief.

Aug 45



(GAD-43-4-416)(2 Jan 44)(A-26 CRASH).



(GAD-43-1-416)(2 Jan 44)(A-26-CRASH)



(GAD 43-2-416)(2 Jan 44)(A-26 - CRASH)

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H E A D Q U A R T E R S
416TH BOMBARDMENT GROUP (L)
Office of the Commanding Officer

APO 140, U.S. Army,
10 January 1945.

SUBJECT: Transmittal of AAF Form 14.

TO : Commanding General, 9th Bombardment Division (M),
APO 140, U.S. Army.

Transmitted herewith is AAF Form 14 (in quadruplicate) with inclosures covering accident of Lt. Ralph J. Lackner in aircraft A-26B-20 ACSN 41-39214 on 2 January 1945.

For the Commanding Officer:

George Schenkein
GEORGE SCHENKEIN,
Capt., Air Corps,
Adjutant.

Incl: 1
AAF Form 14 (in quadruplicate) with inclosures.

360.33 1st Ind. E-Q-14
HEADQUARTERS 9TH BOMBARDMENT DIVISION (M), APO 140, U. S. ARMY, 18 January 1945.

TO: Commanding General, Ninth Air Force, APO 696, U. S. Army.

Submitted in compliance with Memorandum 55-1, Headquarters Ninth Air Force, dated 27 November 1944.

For the Commanding General:

S. L. Parmenter
S. L. PARMENTER,
CAPTAIN, A.C.
ASS'T ADJ. GEN.

RECEIVED 21 JAN 1945

Incls: n/c (1 cy w/d)

- 10 -

482

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360.33 2nd Ind. E-

HEADQUARTERS NINTH AIR FORCE, APO 696, US Army, 6 February 1945.

TO: Chief, Flying Safety, Army Air Forces, Winston-Salem 1, North Carolina.

Report and recommendation of Aircraft Accident Committee approved.

For the Commanding General:

S.V. HESLIN,
Major, A.G.D.,
Asst Adj. Gen.

1 Incl: (2 cys w/d)

482

- 10 -

NAME OF PILOT	TYPE OF PLANE	ACCIDENT NUMBER
LACKNER, Ralph J.	A-26B-41-39214	45-1-2-527

CHARGED TO:	OUT	IN
m.v. Capt. Bache	3-19	4/h
PPRICE	5/h	

CHARGED TO:	OUT	IN

CHARGED TO:	OUT	IN

Accident No. 45 L 2-507

Date

Checked by [illegible] 3-6-45

Analyzed by 552 3-7

Copied for Wright Field by

Notes Captain Bach

6 Apr 45

3929:10-44 FS


527

GENERAL SERVICES ADMINISTRATION

NATIONAL ARCHIVES AND RECORDS SERVICES

WORLD WAR II RECORDS DIVISION

AIRCRAFT ACCIDENT AND INCIDENT REPORTS

1941 THRU 1948

(Filed by Fiscal Year - Beginning 1 January 1941)

DECLASSIFIED

DOD DIR 5200.9, Sept 27, 1958

NWD by _____ date May 6, 1960

MICROFILMED BY

SECURITY AND SERVICES BRANCH

AGO MICROFILMING JOB NR D-482-1

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GENERAL SERVICES ADMINISTRATION

MICROPHOTOGRAPHER'S REPORT

1. RECORDS OF *(Name of agency and sub-division)*	2. BRIEF TITLE OF RECORDS	
		3. FILM SERIES OR JOB NO. DJ82-1 / 4. REEL NO. 409

5. STARTS WITH: 45-12-31-5

6. INTERMEDIATE POINTS

FLASH	45-1-1-1
2	
3	
4	
5	
6	

7. ENDS WITH: 45-1-3-14

8. STARTED		9. FINISHED		10. TOTAL HOURS	11. TOTAL IMAGES
DATE	HOUR	DATE	HOUR		
6-29-60	1000	6-30-60	2000		2417

12. PHOTOGRAPHED BY *(Signature of camera operator)*: Pauline R. Zehring

13. REPORT APPROVED BY *(Signature of supervisor and date)*:

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