

Flight 203 Remembered

By Richard Seaman

New York to Baltimore

The twin-engined Douglas DC-3, dangerously low on fuel, circled over the city at 1500 feet altitude. An unexpected storm had reduced ceilings and visibility to near zero at all airports along the east coast.

Captain John Booth picked up the microphone and called the American Airlines dispatch office. "Can you give me any airport that's still open?" The dispatcher on duty hesitated and then said, "Johnny, I'm sorry but there isn't anything open within your fuel range."

This story began fifty-five years ago, on a wintry Sunday, January 5, 1947. American Airlines Flight 203 was scheduled from New York to Nashville, Tennessee, with several enroute stops, of which Baltimore and Washington, D.C., were the first two.

The flight departed LaGuardia Field at 5:34 p.m., and was cleared to cruise at 2000 feet. Sufficient fuel was aboard for approximately 3 hours and 30 minutes operation.

The January 5th weather forecast prepared by the U.S. Weather Bureau for New York and vicinity read as follows: Mostly sunny today, highest temperature, 35 to 40 degrees; moderate to fresh westerly winds. Tomorrow, partly cloudy and colder, fresh northwest to west winds.

Weather Summary

TIME, PM	WEATHER	WASHINGTON	PHILA	LaGUARDIA
5:00	Ceiling (feet)	5000'	4400'	CLEAR
	Visibility (mi)	2-1/2	4	3
		HAZE-SMOKE	SMOKE	SMOKE
5:25	Ceiling (feet)	5000'	5500'	CLEAR
	Visibility (mi)	3	4	3
		RAIN-HAZE SMOKE	SMOKE	SMOKE

WEATHER VFR ALL THE WAY

CLEAR-HIGH OVERCAST

As the DC-3 lifted off the runway, Captain John E. Booth and First Officer Tom Hatcher looked forward to another routine trip. The plane banked in a shallow, climbing turn to head south. The city lights illuminated the five New York boroughs.

The sky was inky black. Sunset in New York on January 5th was 4:45 p.m. Dusk had come and gone.

At about the same time *The Siberian Express*, a massive cell of cold polar upper air, was speeding southeast from Canada. Simultaneously, a low pressure area developed in West Virginia and began moving northeast. Before the day would end, these two airflows would converge.

As Flight 203 proceeded south over the New Jersey farmlands, it passed west of the town of Princeton. The glowing lights of Philadelphia soon loomed into view.

As Flight 203 approached Baltimore, Captain Booth made contact with the airport tower and requested landing instructions. He was cleared to land on runway 33, wind west at 5 miles per hour, altimeter 29.23.

The officially recorded arrival time was 6:46 p.m. The elapsed time, LaGuardia to Baltimore, totalled one hour twelve

minutes; consequently, fuel remaining on board was approximately two hours and eighteen minutes.

The plane taxied to the gate where several passengers deplaned and a few others boarded. A quick turnaround was in order. The cabin door was closed and latched. No fuel was added as this was intended to be done at Washington. A total of 16 people were on board, consisting of 12 passengers plus Captain Booth, First Officer Hatcher, Stewardess Murphy, and off-duty Stewardess Picolo Looper, who was "deadheading" to Nashville.

Captain Booth requested an instrument flight clearance to Washington, D.C., but was advised by Baltimore tower that, because of emergency traffic in that area, clearance could be approved only if the flight was conducted in accordance with visual flight rules (VFR). The captain accepted this condition.

Baltimore to Relay

Flight 203 departed Baltimore at 7:00 p.m. The decision to proceed VFR would prove to be crucial, but it was a common procedure in those days. It was, however, a decision based, in part at least, on ignorance of the impending weather conditions.

At about 7:15 p.m., the captain reported his position to the Washington Control Tower as "east of the Capitol building". The airport was in sight. At this same time, the flight was advised that two aircraft had declared emergencies at Washington because of fuel shortage. Flight 203 was instructed to remain VFR (clear of all clouds) east of Anacostia. Anacostia is located 2 1/2 miles east of Washington airport.

After circling east of Anacostia for a few minutes, Flight 203 began to encounter difficulty in maintaining VFR flight. Accordingly, Captain Booth contacted the Washington tower and advised that he was climbing to 2500 feet for safety reasons.

Shortly thereafter, the flight was directed to proceed to the Baltimore radio range station at an altitude of 4000 feet.

At 7:42 p.m., additional instructions authorized Flight 203 to proceed to the Relay intersection, eight miles west of Baltimore, maintain 4000 feet and hold.

Holding procedures are defined by the Federal Aviation Administration as "a predetermined maneuver which keeps aircraft within a specified airspace while awaiting further clearance from Air Traffic Control."

At 7:55 p.m., the flight was cleared to descend to 2000 feet and continue holding at Relay.

Snow was beginning fall. A few flakes at first, hitting the windshield, then sliding away. Flight 203 continued circling around in a standard race track pattern, all turns to the right, anxiously waiting for clearance to approach and land at Washington.

To a pilot, a snow storm is an unwelcome enemy, something to be avoided if possible. Wet snow sticks to the wings, the nose, the windshield where it can form an icy crust, and to every conceivable crevice on the fuselage.

The effects of a build up of snow and ice on an aircraft are cumulative. Thrust is reduced. Drag increases. Lift lessens,

weight increases and vibrations develop. Propellers heave chunks of ice against the fuselage. The end result is a higher stall speed and a deterioration of aircraft performance.

On December 21, 1947, a charter DC-3, while making an instrument approach to North Platte, Nebraska, stalled out at 105 mph and crashed on, the runway. Investigation disclosed a substantial amount of rough ice on the underside of the wings.

Ice on the windshield presents a grave problem on approach and landing. The best cure with a DC-3 is to use a squirt of alcohol, which flows over the windshield much like a car windshield washer fluid. If this fails, the pilot opens the side cockpit window, reaches out into the icy blast around to the windshield, and uses a putty knife to scrape off enough ice to allow a peek through. This is not a joke, experienced DC-3 pilots know.

Flight Training Manuals offer this sage advice: "When icing is detected, a pilot should do one of two things, he should get out of the area of precipitation, or go to an altitude where the temperature is above freezing." Flight 203 was entrapped in a holding pattern and could do neither.

While holding at Relay, Flight 203 began experiencing precipitation static caused by the snow. Radio reception was intermittent. Low frequency navigation facilities were also impaired by precipitation static. Several military and civilian aircraft operating in the area declared emergencies, resulting in further extensions of delays and interruption of normal landings at both Washington and Baltimore airport.

After holding at Relay for more than an hour, Captain Booth decided to proceed to Philadelphia airport. The Washington Control Center, therefore, cleared Flight 203 to Philadelphia, to cruise 3000 feet.

Weather Summary

TIME, PM	WEATHER	WASHINGTON	PHILA	LaGUARDIA
7:26	Ceiling (feet)	1600'	5500'	CLEAR
	Visibility (mi)		2-1/2	4 4
	RAIN-FOG		RAIN-SLEET	SMOKE
8:00	Ceiling (feet)	1000'	5000'	CLEAR
	Visibility (mi)		2-1/4	2-1/2 3
	RAIN-SLEET		RAIN-FOG	SMOKE
8:20	Ceiling (feet)	1200'	1300'	CLEAR
	Visibility (mi)		2-1/4	2-1/2 3
	RAIN-SNOW		RAIN-SNOW	SMOKE
			FOG-SMOKE	

Relay to Lakehurst

As Flight 203 cruised northeast toward Philadelphia, it departed the airspace under the jurisdiction of Washington Center and entered the airspace assigned to New York Center. A request was therefore made to New York Center for clearance to Philadelphia Control Tower. New York Center advised it would be impossible to issue such a clearance unless an estimated time of arrival at Philadelphia could be furnished by Flight 203.

No unusual keenness of intellect was needed to determine that this request for E.T.A. was not what Flight 203 needed now. Their navigation equipment was not functioning properly due to precipitation static. The distance to Philadelphia was unknown. The time to fly there could not be computed.

Flight 203 was caught in a situation commonly referred to as the "CONDITIONAL" syndrome. The controller was saying, "If you give me an E.T.A., you can have a clearance to the Philadelphia Tower."

Subsequent attempts to contact Flight 203 were unsuccessful due to static.

The time now was approximately 8:45 p.m. Departure from Baltimore had been 7:00 p.m. Clearly, time was becoming critical. The grim possibility of disaster ahead must have preyed on the minds of the Flight 203 crew.

At 9:07 p.m., the American communication station at New York received a message from Flight 203 on VHF (very high frequency), indicating that it had no low frequency radio range navigation reception. Further more, its low frequency direction finding equipment was inoperative. Navigation by radio aids had failed because of precipitation static. Navigation was reduced to dead reckoning. Because of the loss of radio range reception, it would not be possible to use the Philadelphia range to make an approach to the airport. Flight 203 therefore advised that it was continuing northeastward until visual contact with the ground could be established. Its estimated position was in the vicinity of Lakehurst, New Jersey.

Captain Booth's attention was directed to a new annoyance – "Saint Elmo's" fire. Saint Elmo is supposed to bring comfort to sailors, and presumably to airman, in times of storms and trouble. Ironically, however, the presence of the flickering blue discharge indicates conditions that may increase the hazards of a lightning storm.

Lakehurst to LaGuardia

Nobody likes to think about trouble. Still less does any pilot like to think about trouble up in the air. But there is one thing you can depend on; if you spend enough time in the air, sooner or later you will be face to face with trouble.

There are two types of trouble "Fast" and "Slow". Fast trouble is losing and engine on take-off, fire in the cabin or cockpit, hitting a flock of geese. Fast trouble calls for immediate action. It is usually resolved, one way or another, in a matter of minutes.

Slow trouble is less dramatic, but can be just as deadly. It sneaks up on you insidiously, building up from many small problems and errors made by you or someone else. Finally there comes a moment at which you recognize that you are in deep trouble. Flight 203 was in deep trouble.

At 9:15 p.m., American Airlines communication station asked Flight 203 if they were "contact" (could see the ground). Flight 203 replied that they had not seen "contact" since leaving Washington.

Weather Summary

TIME, PM	WEATHER	WASHINGTON	PHILA	LaGUARDIA
8:45	Ceiling (feet)	1600'	500'	CLEAR
	Visibility (mi)	21/2	1/2	3
		RAIN-SNOW	SNOW-FOG	SMOKE
9:00	Ceiling (feet)	1400'	1000'	4000'
	Visibility (mi)	2-1/2	1-1/2	3
		SNOW	SNOW-FOG	SNOW
			SMOKE	
9:13	Ceiling (feet)			1000'
	Visibility (mi)		1	
				SNOW
9:25	Ceiling (feet)	1500'	1000'	600' 3
	Visibility (mi)	2-1/2	1-1/2	3/4
		SNOW	SNOW-FOG	SNOW
			SMOKE	

Whatever happened to that rosy Weather Bureau forecast for New York City and vicinity? The meteorologist's dream is the perfect forecast, i.e., a prediction from hour to hour, today and tomorrow, what the weather will be. The weatherman's lament, of course, is that no one ever remembers the forecasts which he made correctly.

Weather is perhaps the only factor over which a pilot has absolutely no control during the course of a flight. Sometimes things happen so swiftly that in less than an hour, the counte-

nance of the weather alters completely.

And so it was on the night of January 5th, that a giant convergence of two air flows took place. Detection by the Weather Bureau was difficult, if not impossible, because of the absence of radio reporting stations for winds aloft.

This was a night which would drive the meteorologists to the far edge of their science and sanity. Forecasting in 1947 was more of an art than a science. By the time the forecasters became fully aware of the true state of affairs, it was too late to warn Flight 203. The Weather Bureau had been zapped. It had happened before and would happen again. You have to have a strong gut to be a forecaster.

Captain Booth had a survival problem on his hands. It would be no picnic the rest of the way in. Simply put, the problem was to get Flight 203 back to earth, somewhere, anywhere, in one piece.

As any pilot knows, flying on instruments, in a snowstorm with no radio navigation aids, can stir up the emotions, particularly fear. Everyone has some fear. Fear causes changes not only in the body, but also in the mind. The blood circulates faster, arteries dilate and accelerate the bloodstream, muscles become taut, and digestion slows.

All of these actions have survival value for the individual, bringing strength to the arms and confidence to the soul. But it also turns the stomach upside down.

Flight 203 was caught in a nutcracker held securely between two immutable factors—the distance capability of the aircraft—and the time when fuel would run out.

Night adds another dimension of difficulty to flying which non-aviators scarcely imagine. Flying on a clear, full moonlight night allows one to explore the mystery of infinite space and see the austerity of stars. An unexpected snowstorm can wipe away the grandeur of it all.

At 9:28 p.m., Flight 203 declared an emergency, reporting that it had 70 gallons of fuel remaining, and requested a report on the nearest airport where the weather was a 1000 feet or better.

Time Summary - Flight 203

TIME, PM	ESTIMATED FUEL 3 HOURS 30 MINUTES	CUMULATIVE FLYING TIME	
		HR'S	MINS
5:34	DEPARTED LaGUARDIA		0
6:46	LANDED BALTIMORE	1	12
7:00	DEPARTED BALTIMORE	1	12
7:15	REPORTED EAST OF WASHINGTON	1	27
7:42	CLEARED TO RELAY, HOLD AT 4000'	1	54
7:55	DESCENT TO 2000' HOLD RELAY	2	07
UNK	CLEARED TO PHILA AIRPORT, 3000'		
9:07	UNABLE TO MAKE RANE APPROACH TO PHILA. CONTINUING NORTHEAST. PRESENT POSITION VICINITY OF LAKEHURST	3	19
9:15	NO VFR CONTACT SINCE WASHINGTON	3	27
9:28	DECLARED EMERGENCY	3	40

Professional airline pilots do not declare emergencies that turn out to be false alarms. Crying wolf is not consistent with career advancement.

While maintaining a northeasterly heading, at altitude 3000 feet, in the vicinity of Lakehurst, New Jersey, Flight 203 attempted to break out of the clouds by descending to 1500 feet, then 1000 feet, and finally down to 200 feet. However, instrument conditions were still being encountered, even at this perilous altitude, so Flight 203 climbed to 1500 feet and headed toward Manhattan.

Flying at low altitude near New York City can be particularly hazardous. LaGuardia Airport is surrounded by high rise

apartments, bridges, radio towers, and countless numbers of man-made spires. The Empire State Building, on the corner of 34 Street and Fifth Avenue, juts into the sky 1248 feet above ground. During World War II, a plane lost its way in the fog over New York City and crashed into the side of the building.

Captain Booth concluded that LaGuardia was his best bet, so he continued northward at 1500 feet until he was virtually over the New York airport. He managed to contact a company dispatcher who gave him more bad news, LaGuardia was closed!

LaGuardia - January 5, 1947

Time (pm)	Ceiling (feet)	Visibility (miles)	
4:45	Clear	3	Smoke
5:00	Clear	3	Smoke
5:25	Clear	4	Smoke
5:45	Clear	4	Smoke
6:00	Clear	4	Smoke
6:25	Clear	4	Smoke
6:45	Clear	4	Smoke
7:00	Clear	4	Smoke
7:25	Clear	4	Smoke
7:45	Clear	3	Smoke
8:00	Clear	3	Smoke
8:25	Clear	3	Smoke
8:45	Clear	3	Smoke
9:00	4000'	3	Snow (light)
9:13	1000,	1	Snow (light)
9:25	600'	3/4	Snow (light)
9:31	400'	1/4	Snow (heavy)

Thunder & Lightning

Conversations were getting short now, no wasted words. Captain Booth again contacted the American Airlines communication station. "Can you give me any airport that's still open?" The dispatcher on duty hesitated and said, "Johnny, I'm sorry but there isn't anything open within your fuel range."

This response was inconceivable. It was tantamount to being told that you had terminal cancer. Any help he had hoped for from the people on the ground was now gone.

He turned to God for help. Prayer brought him reassurance. To those who make their living in the aviation industry, an airline captain is a special person. To qualify for the left seat in an airlines cockpit requires a long and arduous period of training and years of "on the job" experience as a co-pilot. Air carrier pilots must pass a rigorous flight check and physical exam every six months, and at age 60, are required by law to be relieved of pilot duties.

The time now was a little past 9:30 p.m. The passengers and crew faced the awful specter of death, but only the crew were fully aware of how serious the situation had become. Captain Booth decided not to tell the passengers. "I think they would panic and that's the last thing we need. I'll leave the no smoking and seat belt signs on and that's about all we can do for them."

There were three alternatives: try to land somewhere and risk running out of fuel over the middle of New York city; ditch in the ocean; or try to find some beach area where they might crash-land. Ditching would be the last resort. It was bitter cold night and they wouldn't last ten minutes in the freezing water.

The matter of how much fuel was actually available presented another problem. Fuel gauges are fairly accurate and dependable, whether in a plane or car, so long as they register FULL, THREE-QUARTERS, or HALF. When the needle passes the ONE QUARTER mark, reliability is diminished.

At 9:28 p.m., Flight 203 had been airborne a total of 3 hours and 40 minutes. The estimated fuel on board, when departing

LaGuardia, had been 3 hours and 30 minutes. However, fuel consumption had been significantly decreased while holding in the Washington area for more than an hour at reduced throttle settings. Therefore, the propellers were still spinning and the plane had not yet turned into a giant twelve-ton glider.

Time is a pilot's greatest friend and also his greatest foe. Every flight has a limited time span. When that time expires, the flight either ends in a safe landing or tragically as a pile of twisted metal.

Captain Booth knew now that he would probably have to settle for less than victory. He would have to settle for avoiding the worst, rather than achieving the best. He had always wanted a life ripe with action, adventure, responsibility and danger. But tonight was more than he had bargained for. Beyond all reasonable odds, the random hand of fate seemed to have conspired against him.

Experienced pilots like to observe that flying is, for the most part, a thoroughly enjoyable vocation occasionally interrupted by sheer terror. Mechanical malfunctions occur infrequently.

Prior to making his final decision of the three alternatives available to him, he turned to his co-pilot, Tom Hatcher. "Tom, can you think of anything we could do that we haven't done already?" The grim possibility of doom obviously was haunting his mind. He wanted to be sure that he had truly done the best humanly possible.

Hatcher replied, "I can't think of a single thing." Captain Booth took a deep breath and said, "Well, I figure about all we can do is head out over the water and drop a flare."

They flew southeast on a heading of 110 degrees for fifteen minutes in order to permit a decent over open water free of obstructions.

Making a descent to a very low altitude is a risky business. A pilot is forced to place his trust in an altimeter, a system of sealed bellows which responds to very small changes in air pressure by expanding or contracting. The movement of the bellows is connected to a pointer which is displayed to the pilot on a scale marked in feet. Pressure will decrease with altitude so, whenever the bellows sense a decrease in air pressure, the pointers on the instrument panel show an increase in altitude, and vice versa.

Altimeters are subject to several errors. Therefore, when a pilot is letting down, hoping to break out of the cloud cover, he can never be absolutely certain of his altitude.

Furthermore, if the cloud cover extends all the way to the earth's surface, the plane could begin clipping off the tree tops or churning up the ocean waves even while the altimeter reads 200 feet. FAA accident files are filed with instances in which the pilot was misled by a faulty, or incorrectly set, altimeter. When you taxi out for take-off, the tower will give you the local altimeter setting. Set your altimeter to this setting and then check for any changes at radio stations along your route of flight.

Flight 203 gingerly descended to 300 feet. Everything was pitch black. Even at this low altitude, they were still in the clouds.

At 9:56 p.m., Flight 203 dropped one of their magnesium flares. On a clear night, a magnesium Flare grows brilliantly and can be seen for miles. The landscape below lights up like a baseball park during a night game. In a snowstorm, a flare gives off a very dim light, no more than a 100 watt light bulb. Consequently, it took a skillful piece of flying by Captain Booth to spiral down with the DC-3 and not lose contact with the flare. Furthermore, in a snowstorm, the surface below is not illuminated. Only with the help of the landing lights, were they able to spot the angry whitecaps churning beneath them.

Having confirmed that they were over the water, they reversed course to fly northwesterly on a 310 degree heading hoping to catch sight of the shore line. They desperately needed a beach to land on, not the ocean.

With the altimeter indicating zero, they were able to keep sight of the water by opening the side cockpit windows. It was snowing heavily and forward visibility was nil. Both windshield wipers were sluggish. They were flying so low that they could smell the sea.

But in the winter, the beaches are deserted and can be used as emergency landing fields. Flight 203 was counting on that.

Booth and Hatcher strained their eyes as they peered through the snow. The landing lights were on but the only thing they could see were monstrous waves clawing at them. Each succeeding wave appeared to be the one that would completely cover them over.

By this time, they had emptied the two auxiliary fuel tanks and one main tank. The engines were operating on whatever fuel remained in the final main tank.

Captain Booth turned to Hatcher and asked, "How much fuel do we have in the left main tank?" Tom replied, "All tanks show empty".

Flight 203 had reached the crucial stage. If there are such things as miracles, they need one now, a splendid piece of luck, which could see them through.

Flight 203 continued on a northwest heading. The crew was resigned to ditching. The ocean was a fantastic turmoil because of the storm.

The Airman's Information Manual published by the Federal Government cautions that it is dangerous to land into the wind without regard to sea conditions. On ditching parallel to the swell, it makes little difference whether touchdown is on top of the crest or in the trough. A successful ditching depends to a large extent on the skill and technique of the pilot.

Flight 203 was down to the final play of the game. And then it happened. Suddenly ahead they saw a most welcome sight. A light! It was a buoy, a welcome sight to sailors in a storm, but tonight it brought joy to aviators. A second buoy flashed by. Shortly thereafter, the landing lights illuminated a stretch of flat beach. It was low tide and the ocean waves had washed away the snow, leaving a portion of the beach exposed. Flight 203 was down to 50 feet altitude or lower. The windshields were iced over and the only visibility was out through the sliding windows of the cockpit.

A turn was made to the left to line up with the narrow strip of visible sand, but the plane drifted out over the water. An immediate turn was made back to the right to pick up the beach, but because of the extremely low altitude, the right wing tip struck the sandy beach. The DC-3 careened onto its nose and spun around to the right a full 180 degrees or more. It finally came to rest heading in the direction opposite from which it had been flying.

Captain Booth's face hit the windshield, the impact shoving his teeth through his lower lip. Co-pilot Hatcher was thrown to the left, against the control yoke, driving one eye a quarter inch into its socket.

The careening plane came to a stop. Captain Booth had executed the difficult and amazingly successful task of a safe emergency landing. It was 10:08 p.m.

"Tommy, are you all right?" asked Booth. Hatcher muttered, "I think so." Captain Booth opened the escape hatch above the cockpit, crawled out, and jumped to the ground, checking first to see if there was any sign of fire. There wasn't. He walked back to the cabin door and unlatched it. Both hinges were broken, the door came off in his hand. After ordering the twelve shaken, but uninjured passengers to stay in the

plane, Booth told the two stewardesses to give Hatcher first aid.

Captain Booth had no idea where they had landed, so he asked four male passengers to walk on the beach, two in each direction, to find help. Then he returned to the cockpit, where the stewardesses were ministering to a groggy Hatcher.

Booth tried to get the radios working, but the transmitter was dead. Angrily, he kicked it—and it started to hum. He raised some station—it was either Washington or Boston, but he never was sure which—and advised that they were down somewhere on the South shore of Long Island. He was told to hold down his mike button so they could take an ADF bearing and repeat, “M.O. M.O....” Captain Booth continued sending out long “M.O.” signals for more than half an hour without success. His final message on the overworked radio was “Never mind, here comes a car now,” as he saw the lights of an approaching automobile. The time was 10:48 p.m. It was a Coast Guard truck, alerted by two of the four passengers he had sent for help. One of the two had gone into the Station, told the startled Coast Guardsmen what had happened, and then figured he’d better advise the airline. The only listed number for American was reservations, which he dialed. A women agent answered. “I’m a passenger on your Flight 203 and we have landed on Jones Beach,” he said. “I’m sorry sir,” she said politely, “but American doesn’t serve Jones Beach.” “Well, young lady,” he sighed, “you sure as hell do now.”

Soon the Coast Guard truck arrived with Chief Boatswain’s Mate Norman Midgett and his crew of nine. After a short period of time, buses arrived and carried the passengers to the Coast Guard station where they were served coffee and other stimulants. American Airlines Company limousines transported them to New York City. They had just flown round-trip on a one-way ticket!

Captain Booth’s act of courage did not bring him any lasting fame. On the front page of the Monday morning New York Times, the headlines went to another plane crash where 3 died and 19 were hurt, not to Flight 203 where 16 were saved. Saving 16 lives is not as newsworthy as losing lives. Successes are often shrouded in silence while failures are spotlighted in notoriety.

The Accident Investigation Report was released on November 24, 1947. The probable cause of the accident reads as follows: PROBABLE CAUSE

“On the basis of the above findings, the Board determines that the probable cause of this accident was the inability of the pilot to land at a prepared landing area due to the loss of radio navigational reference resulting from severe static interference. A contributing factor was the saturation of navigational facilities in the New York–Washington area due to the existence of a large number of emergencies, which prevented an early landing. A further contributing factor was the failure of the company and the United States Weather Bureau to forecast adequately, the high level conditions affecting this area due to an insufficient number of radiosonde stations in the Northeastern States.”

The DC-3 registration number 21746 was reassigned to a Cessna 172 *Skyhawk* owned by the Independence Flying Club, Independence Municipal Airport, Kansas.

The only other surviving records are those buried deep in the memories of a handful of people who, for as long as they live, will never forget a wintry night, a snowstorm, a beach, an airplane, a pilot, fear and courage.

Aftermath

The Aircraft:

Douglas DC-3, NC21746, which landed on Jones Beach, had been operated a total of 25,547 hours prior to the accident.

It has often been said that you might wreck a DC-3, but you will never wear it out.

The DC-3 made its first flight in December, 1935 and became one of the most popular aircraft in the world. By 1946, when the last DC-3 came down the line, 10,926 had been manufactured. In 1999, there were 572 DC-3 aircraft registered with the Federal Aviation Agency.

It is impossible to reminisce about this aircraft without using superlatives. The DC-3 earned a great deal of respect for its integrity and dependability. Its ability to absorb punishment and still make it through is amazing. American Airlines DC-3, NC21746 was a badly battered gallant lady the night of January 5, 1947 and would never fly again. Most of the plane’s interior was salvaged, including the seats and radio equipment. The remnant was sold to a scrap company, which came out to Jones Beach and hauled it away.

The Crew:

Captain

Captain John E. Booth was 32 in 1947. American Airlines gave him a Distinguished Service Award for bravery. He retired in 1975 as a senior captain.

The CAB accident report praised him. The Board said, “It must be noted that the pilot exercised commendable judgment and skill in completing a safe emergency landing under difficult circumstances.”

The intense stress experience by Captain Booth left its mark. He stuttered for several years after the Jones Beach landing.

Captain Booth presently lives in Redlands, California. At age 86, he is suffering from Alzheimer’s disease.

First Officer

First Officer, Thomas E. Hatcher, Jr., age 27 in 1947, suffered double vision for six months after the accident and was grounded until doctors repaired the damage. He went on to fly for American another 33 years, retiring as Captain in 1980. He now lives in Centreville, Virginia.

Over the years, Tom has been intently involved in the Lions Club, Masonic Lodge, Medical Center and Centreville Citizens Association. At age 80 he enjoys every day of his retirement.

Stewardess

Stewardess Margaret Murphy began her career with American Airlines in early 1946 with training in New York, then returned to Nashville as her home base. She presently lives in Nashville and has been active in the KIWI Club. The KIWI Club is a national social and charitable organization whose membership is limited to former and current American Airlines Stewardesses/Flight Attendants.

Picola Looper was off duty and enroute to Nashville when Flight 203 made the crash landing at Jones Beach. She was employed by American Airlines in May, 1944. She attended stewardess school in Flushing, New York. She acquired the nickname “Pepsi” after the first radio jingle came out, “Pepsi Cola hits the spot.” She is also active in the KIWI Club and was one of the organizing group for the Los Angeles KIWI chapter in 1952.

The Twelve Passenger

The records of the names and addresses of the 12 passengers who survived the Jones Beach landing are unavailable. Who they were and what has happened to them over the past 53 years remains a mystery.

Captain Booth always expected to hear from at least some of the passengers whose lives he had saved, but it didn’t happen. For those passengers who are still alive today, wherever they are, they owe a “Thank you” note to the crew of Flight 203.

Navigation and Traffic Control Improvements

What did the crash of Flight 203 contribute to the advancement of commercial aviation?

It highlighted the need for static free communication and navigation equipment; more accurate and timely weather forecasting; a technique to track the location and movement of aircraft from the ground; and the need for direct air to ground voice communications between air traffic controllers and pilots.

Being an airline pilot in the 1940's was full of perils, flying by the "seat of your pants" was not good enough, improvement had to come.

This accident provided sorely needed ammunition for aviation-minded Congressmen in their fight to obtain funds for the modernization of the Air Traffic Control and Navigation system.

Improvements were not long in coming. Unprecedented progress has been achieved in the past fifty-three years:

1. ASR Airport terminal radars plus long range enroute radars provide continuous flight following of aircraft from the moment they leave the runway until touchdown at some distant destination. A small tag is automatically attached to the radar blip on the controller's scope showing the aircraft identity, altitude, ground speed and intermittently, aircraft type and destination.

2. VOR Low frequency radio range stations have been phased out. The last range was decommissioned in 1974. Low frequency precipitation static would never again eradicate radio transmissions from a navigation aid or be a primary cause of accidents, or a deterrent to the growth of aviation.

In their place, 1026 static free, very high frequency ranges (VOR) have been installed from coast to coast.

3. TOWERS Newly designed airport control towers were constructed to provide a darkened room to house ASR radar scopes used by controllers to control aircraft operating within the radar range of the ASR. A tower was also added to house a cab for controllers, which enabled them to have a clear view of the entire airport and surrounding airspace and permit them to visually control departing, arriving and taxiing aircraft.

4. ILS Sophisticated landing systems have been developed and installed at all major airports throughout the U.S. These systems provide precise electronic guidance to the aircraft as it descends along the approach path and on down to the touchdown point on the runway.

Many of the newer commercial jet aircraft are equipped to make what is called "coupled approach" to an airport. A "coupled approach" simply means that the aircraft is flown by autopilot and automatically follows the signals sent out from the end of the landing runway by the instrument landing system (ILS). A further refinement (a completely automatic landing) closes the throttles and keeps the aircraft on the centerline of the runway.

Some airline companies prefer that pilots use this equipment on landing rather than fly manually. This "Autoland" equipment permits landing minimums to be reduced to zero ceiling and zero feet forward visibility. The additional ground equipment to support "Autoland" is available at all major airports.

For the past 40 years, serious air navigation has consisted primarily of various forms of radio direction finding and the very high frequency range (VOR).

In the 1970s, a system of global radio navigation was envisioned by the United States armed services to be based on satellites. The now-operational system, known as the NAVSTAR Global Positioning System (GPS), can position an aircraft accurately in three dimensions: latitude, longitude and

altitude.

The satellite constellation consists of 24 satellites. A worldwide ground control/monitoring network monitors the health and status of the satellites. GPS can provide service to an unlimited number of users. The continuous global coverage capability of GPS permits aircraft to fly directly from one location to another, anywhere in the world.

5. Cockpit Improvements and Passenger Capacity

The Jones Beach accident report illuminates the obstacles encountered by pilots who flew in the 1940s when airliners flew low and slow, and in the clouds. In 2002, flying has become the primary mode of intercity transportation.

Air carrier passenger boardings have reached new heights throughout the world. Some of those millions of passengers are curious about what transpires behind the locked cockpit doors, curious about this "OFF LIMITS" room with its four walls plastered with dials, gauges, needles, switches, knobs, buttons and controls. The occupants of the cockpit are not robots, but human beings with a highly sophisticated job to do.

The passenger capacity of the standard Douglas DC-3 is 21 passengers. The capacity of the Boeing 747 varies with the aircraft configuration from 304 to 427.

AIRLINE	TOTAL	CLASSES
Japan	304	First class 19, Executive 157, Economy 128
United	418	First class 18, Connoisseur 80, Economy 320
Canadian	427	Business 48, Economy 379

The Boeing 747 is able to fly non-stop from San Francisco to Sydney, Australia, in 14 hours. Normal cruise altitude is 28,000 to 39,000. Normal speed, 0.80 to 0.85 Mach. The distance is 7,500 miles. To provide a rest area for the crew during the course of a 14 hour working day, there is a bunk room equipped with up to 8 bunks.

United Airlines Flight 863, Boeing 747, departs daily at 11:10 p.m., from San Francisco to Sydney. One-way fares are, Economy \$2184, Business \$3848, and First Class \$6039. □

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About the Author:

Richard H. Seaman and his wife live in Ormond Beach, Florida. He graduated from Rutgers University and received a master's degree from the University of Missouri. Colonel Seaman was an Air Force pilot in WWII and the Korean conflict. During WWII he flew DC-3 (C-47) aircraft over the hump from Burma to China and also B-25 bombers on combat-operational missions in support of ground troops driving the Japanese army out of Burma. He retired from Headquarters Federal Aviation Administration, Washington, D. C., in 1974. He remains active as an ATP-rated pilot.





1. American Airlines DC-3, NC21746, Flagship St. Louis on Jones Beach, L.I., New York, January 5, 1947. (Photo from author's collection)



2. A close-up of the nose of the DC-3 showing the right hand engine ripped from the mount and damage to the nose. (Photo from author's collection)

3. Damage to the rear of the fuselage and tail are shown in this photo. (Photo from author's collection)

4. The interior of a DC-3 passenger cabin with 21 seats. (Photo from author's collection)

5. Another view of Flagship St. Louis on its belly in the sand of Jones Beach. (Photo from author's collection)



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6. Bleeding from cuts on his face, Captain Booth, whose skill in landing saved 16 lives, phones report to American Airlines offices from the Coast Guard station near Jones Beach, Long Island. (Photo from author's collection)

7. First Officer Thomas E. Hatcher went on to fly 33 years for American. (Photo from author's collection)

8. Stewardess Picola Looper. (Photo from author's collection)

9. Stewardess Margaret Murphy (Photo from author's collection)



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