

Oct. 3, 2002 Meeting

Speaker: Captain Howard Malone

**Subject: Recollections of a retired Air
Canada 747 pilot**

Reporter: Gord McNulty

Chapter Director April Tredgett introduced our speaker. Howard gave an outstanding presentation with his family and close friends in the audience. He was born and raised in Toronto, where he attended De La Salle high school. He studied engineering at the University of Toronto, under the regular Officer Training Program with the RCAF. He graduated from U of T in 1961 with a bachelor of science in engineering and went on to advance flying school training on T-33s at Portage la Prairie, MB. After receiving his wings, he went to Centralia, ON, as a flying instructor at primary flying school. He taught on the deHavilland Chipmunk. Howard left the RCAF in 1964 and enrolled in the master's program in town and regional planning at U of T. However, as his course work was finishing in 1966, the airline industry was experiencing a major growth period. Air Canada was hiring and it was too good an opportunity to pass up. Howard was accepted on course in May, 1966 as a second officer on the DC-8.

Thus began a 34-year airline career which lasted until Sept. 30, 2000, when mandatory retirement took effect. During his career, Capt. Malone flew DC-9s, B727s, DC-8s, B767s, and B747s in the -100, -200, and -400 models. He received his captaincy in 1978 on the B727 and flew more than 24 years on "heavies" --- aircraft with a gross takeoff weight in excess of 300,000 pounds. Howard spent 10 years on the various models of the B727, four years as first officer and six years as captain. He finished his career as a captain on the B747-400 --- "the biggest and best aircraft in the world" in his view. In all, Capt. Malone has flown more than 18,000 hours on aircraft, from as small as the Chipmunk right up to the largest and most modern jetliners.

Howard, a gifted speaker, gave an exceptional account of his impressive Air Canada career. It was obvious that he thoroughly enjoyed the work. He has never lost any enthusiasm in the 44 years since he first soloed in the Chipmunk in July, 1958, at Centralia. About 70 per cent of his time at Air Canada was spent on heavy aircraft. He spent 14 years on the DC-8 alone, where he flew in the three crew positions of second officer, first officer and captain. He remembered some wonderful adventures on the DC-8, especially during his last seven years as a captain. By then, Air Canada had converted their entire DC-8 fleet to freighter operations around the world. They were some of the most interesting and enjoyable trips, everything from carrying the RCMP Musical Ride to several hundred thousand bees held in a container. Once in the Middle East, Howard was asked by the U.S. Navy to start doing turns for radar identification while the aircraft was under Bahrain air control. He remembered it as a pretty exciting operation, particularly since it was his first flight there. Howard found that the oddball trips were often the most satisfying and he liked to look for them.

He enjoyed 10 years on the B747, both as first officer and captain. He was a first officer for four years. Howard did a so-called "down bid," moving to a lower-rated first officer's seat after taking his captaincy on the B727. But it wasn't a downer by any stretch of the imagination. He moved to a much bigger aircraft, would be paid more, and would be flying overseas to many exciting places. Later, after his stint as a captain on the DC-8, he returned to the B747 as a captain on the -100 and -200 series. The freight loads again were interesting, with cargos such as race cars and race horses. To top his career off, for his last two years,

he transitioned from the "stone age" of analog dials to the "electronic age" of the digital screen --- the ultimate sophistication of the B747-400. Howard was fortunate to have some background with the modern glass cockpit as a result of experience with the B767. He described the 747-400 as user-friendly for the crew, designed with pilot input in mind. He appreciated the large, easily readable instrumentation and multiple-colour computer screens -- a life-saver for the senior pilots who flew the 747. Howard did not have any Airbus experience. It was just as well, as he would have been required to learn a whole new set of terms and familiarize himself on the Airbus computer system.

Howard also took delight in his own private aircraft, a Lake Buccaneer amphibian, with a pusher propeller mounted high. Talk about relearning flying. With the Lake, everything was opposite. When the power is applied to conventional aircraft, the nose pushes up. With the Lake, the nose pitches down. When power is reduced on a conventional a/c, the nose drops. With the Lake, the nose pitches up. Howard and his wife took delivery of the Lake at the factory in Texas, and had factory instruction.

He was still flying the Lake when he transferred to the 747. What a change. While taxiing in after his first landing with the huge Boeing, Howard observed to a Transport Canada inspector that they were high off the ground. So high, that it seemed like the normal altitude that he flew the Lake at. Howard spent the bulk of his career on aircraft with four engines. He believes that four is better than two on cross-Atlantic flights. When twin-engined a/c flies the ocean, they operate under special requirements mandating an emergency plan for landing should an engine fail. That's not a concern with four engines. Still, there was always the potential for trouble, as when Howard was bringing in a DC-8 from Winnipeg to Toronto. One of its engines had been damaged while a new pilot was being checked out. Howard became suspicious when he could not find any logbook proof that the No. 1 engine had been ground-run. He asked his first officer to keep a close eye on the engine. On takeoff, the oil pressure began to waver and reduce. Howard soon decided to shut down No. 1 and they returned to Toronto at Mach .8 on three engines. Transport Canada was notified of the reduced engine capability. They brought out the full emergency landing crew to the surprise of the crew and a big audience was on hand. The landing went well. Afterward, a senior mechanic came aboard. In aggressive fashion, he asked Howard if he waited until the yellow light came on before he shut down the engine. Howard said he didn't. "You call that judgment," he told the mechanic, who replied, "Well, it's in your manual." Howard said he ignored the manual. The mechanic then told Howard he had saved the airline \$4 million. It turned out that there had been no oil whatsoever in the engine. Two days later, Howard flew the same a/c to Vancouver. This time, the same mechanic reassured Howard that he had personally ground-run the engine. They became good friends.

That incident was probably the last engine shutdown Howard had in his career. Over time, the engines became more and more reliable. He never had a shutdown on the 747-400. In eight years on the 747-100 and -200, he saw only one and it was minor due to the misuse of the throttles at high altitude. However, he had about six shutdowns on 14 years on the DC-8. A couple were close to catastrophic. In one case an engine almost separated from the aircraft after it caught fire on takeoff from Prestwick in the rain. Howard was second officer at the time. The captain in command, a well-known supervisor, called for the reject. The aircraft came to a shuddering halt on a very wet runway. The supervisor then shut down engine No. 3 by mistake. Howard summoned up his nerve and informed him that it was one of the outboard engines that were on fire. The flames had burned through the top of the engine right to the top of the cowling and into the pylon. Two of the mounting bolts which held the engine to

the plane had severed, so it was fortunate that they didn't get airborne. The consolation for the crew was three days in Prestwick, fishing for trout.

Howard included slides of his finale with Air Canada, a seven-hour flight on the 747 from Toronto to Frankfurt with his wife, daughter and son-in-law. He noted that it's always the pilot's final call as to whether the fuel is adequate for the weather and other factors. Once, Howard ordered extra fuel on a 747-400 flight. He ended up as the only wide-bodied airplane to depart from Toronto during a major snowstorm that night. What would normally be a six or six and a half hour flight to London ended up being almost 11 hours. The first five hours were spent on the ground in Toronto. The aircraft was sprayed three times. On the third time, at least four spray trucks were used to get the spray on quickly enough. All the time, they were burning up fuel.

So it pays to be conservative. The maximum fuel load on the 747 is mind-boggling --- more than 380,000 pounds of fuel. Typical fuel loads are 190,000 to 210,000, still pretty incredible. Each engine eats up 10,000 pounds an hour just on takeoff and climb. In cruise, consumption reduces dramatically to about 10,000 for the whole aircraft as it lightens. The first officer on the final flight was Mark Rasmussen, who two years before had been the man that Howard had trained with on the 747-400. They had never flown together before, so it was fitting sign-off for Howard. At the time, visitors were allowed in the flight deck but since the Sept. 11 attacks that's no longer the case. It's regrettable in Howard's view. Even he isn't allowed to enter the flight deck as a retired captain.

Howard noted the 747 is a challenge to taxi and park, and the pilots must rely on the ground staff for directions. For comparison, a DC-8-73 had a 148-foot wingspan, height of 42.3 feet, and a 355,000 pound takeoff weight. The 747-400C has a 213-foot wingspan, height of 63.5 feet and an 870,000 pound takeoff weight. Pilots must adjust for weight (a lighter aircraft will start to move quickly as the brakes are released with the engines at idle), and power (the thrust of the engines can upset everything and everybody that's behind the aircraft.) A couple of years ago a 747 pilot in Alaska tried to do a tight 180-degree turn within two wings of the terminal. He turned a couple of vehicles upside down, and lifted baggage carts off the ground. The carts were hurled through the windows of the terminal. Pilots will have to be even more careful in future.

The latest version of the B777, the 300 ER, is coming out with two engines of an astonishing 115,000 pounds of thrust each. In comparison, the 747's four massive engines generate a total of 227,000 pounds thrust (versus 88,000 for the DC-8). As Howard said, "Flying the heavies is a different world." He described driving from the terminal to the runway, and the runway to the terminal, as the hardest part of the flight. The tall height is a factor too. When the wind blows; a heavy aircraft tends to become a "giant weather-cock" and it will easily stray off the runway. Howard recalled once doing a complete 540-degree turn in a stretch DC-8 on a sheer-ice runway while he was lined up for takeoff. In the wintry weather, the low proximity of the DC-8's podded engines to the ground was another worry. He recalled they got airborne, but not by much as the engines were very close to the snow banks.

Howard described the 747 takeoff as a "real rush." All of his takeoffs were done manually. He described the 747 as surprisingly docile and stable. He likened the lift-off to "taking an office building into the air." Normal cruise on the 747 was between Mach .84 and .86. But as Air Canada formed alliances with other companies, just-on-time scheduling came into fashion and the company would agree to higher cruise speeds even if it meant more fuel consumption. At times, Howard could fly across

the ocean at Mach .88 and Mach .90. That was getting pretty fast for the 747 and there was a telltale buzz on the control surfaces to indicate that was it. The 747 wasn't the Concorde, but it was fast enough to allow Howard to pass other airliners going in the same direction. He said the 747 was very aerodynamic and responsive for its size, and he suggested the winglets helped. Descent and approach was relatively straightforward, but with a bigger aircraft you had to think further ahead in relation to scheduling and space. There was always some tension on landing itself. As Howard put it, "Every single runway I landed on really looked short." The 747 had "awesome" fully automated landing capabilities. Even so, the landing seemed to be a lesson in fate, especially when executed for the first time. Under the rules, the crew were not to look outside the aircraft until they were on the ground. All of the critical information was fed to the pilots on the instruments and they had to monitor all of it as they approached the ground. At 30 feet from the ground, the pilot not flying the aircraft would say "30 feet." At that point there would be a minor change in the pitch-up. Then the rear wheels would touch down. However, the nose of the 747 would still be 60 feet above the ground --- a long way down. As Howard noted, it seemed as if the runway was short indeed. But it was just a matter of dropping the nose gently to the ground and letting the powerful automatic braking system take over.

After all of his experience, Howard is still in awe of the size of the 747. Incredibly, a planned long-range double-decker jetliner of the next generation is expected to have a gross weight of 1.2 million pounds. Howard's Frankfurt trip was delightful in every way. The gang enjoyed a suite at the Hyatt Regency adjacent to an old fort overlooking the Rhine River. They returned to Toronto on 30th Sept. of 2000.

In answer to a question, Howard said he is not in favour of putting firearms on airliners. Chapter President Bob Winson expressed thanks to Howard on behalf of the Chapter Directors, members and guests present; for a highly informative, thoughtful and professional presentation on the rewards of flying heavy jetliners.



*Bob Winson with Captain Howard Malone and Director April Tredgett.
Lou Wise Photo.*



*Captain Howard Malone chatting with John Brookfield our
Dec. 19th, speaker.
Lou Wise Photo.*