The Montréal area is one of the world’s great aerospace manufacturing centers. Its vibrant rotorcraft industry includes producers of helicopters, turboshaft engines, advanced avionics systems and simulators.

Today, few recall that between 1945 and 1951, Montréal also was the city where a small team designed, built, and certified the first helicopter in Canada – and the entire British Commonwealth, the Sznycer-Gottlieb SG-VI-D Grey Gull.

**Sznycer and Gottlieb Origins**

The helicopter story begins in October 1943 when Bernard W. Sznycer, a mechanical/aeronautical engineer born in Poland in 1904, established the Helicopter Research Corporation in Philadelphia, Pennsylvania, to develop a small helicopter.

Captivated by aviation as a child, Sznycer began his career as an aircraft mechanic with the forerunner of LOT Polish Airlines. In 1923, he enrolled in the Technical Institute of Warsaw to study mechanical and aeronautical engineering. Upon graduating, he joined LOT’s engineering department and was immediately tasked with designing skis for the airline’s aircraft.

In 1934, he established his own consulting business. Four years later, Sznycer traveled to the U.S. to offer his aircraft ski-designing expertise to Richard E. Byrd’s third Antarctic expedition.

When war broke out in Europe in 1939, Sznycer stayed in the U.S. and worked on aircraft ski designs with noted aircraft builder Don Luscombe. He also worked on guided missile designs and an amphibious glider prototype for the Pitcairn-Larsen Autogiro Company – later known as Glider and Autogiro (G&A) Aviation, which became part of the Firestone Aircraft Company.

In 1942, Sznycer became affiliated with the development of the Fleetwings XH-10 “Twirleybird,” a helicopter designed by the engineering staff of the Franklin Institute. It was funded by shipbuilder Henry J. Kaiser, who was seeking a helicopter to protect wartime cargo ships from submarine attack. Sznycer designed the XH-10’s fuselage and transmission. Both were built by Fleetwings Aircraft in Bristol, Pennsylvania (a company bought by Kaiser in 1943 and renamed the Fleetwings Division of Kaiser Cargo, Inc.).

At Fleetwings, Sznycer also learned “what not to do” when developing a new helicopter. He carried those lessons forward when he formed Helicopter Research Corporation (HRC). Concurrently, he also recruited engineer Donald C. Watson and mathematician Selma G. Gottlieb, both from G&A. Watson was a graduate of the Guggenheim School, while Gottlieb was one of the first women to design a helicopter (and later became the first female member of AHS). A Philadelphia native, she matriculated from Philadelphia High School for Girls and graduated from Wellesley College in 1941 with a degree in mathematics. She initially worked as a statistician at the former Philadelphia Savings Fund Society before taking a job with G&A.

HRC was formed in October 1943. A period of intense learning began with the team studying fuselage design, control systems, rotor hubs, vibration, and stability. Watson, Gottlieb and Sznycer visited Dr. Alexander Klemin at the Guggenheim School of Aeronautics at New York University’s College of Engineering. At the time, Klemin was the only person in the U.S. teaching helicopter theory (at the Guggenheim School of Aeronautics at New York University’s College of Engineering).

**Intercity Airways**

In May 1944, however, Sznycer and Gottlieb left the company they had founded, and moved to New York City. There they promoted their helicopter concept to representatives of the U.S. Navy, the Soviet Union and Mexico. It was Norman Edgar, Vice President of Helicopter Air Transport (HAT) of Camden, New Jersey, who connected Sznycer with investors in Canada willing to fund his new helicopter venture.

HAT was one of the first commercial helicopter operators in the U.S. Norman Edgar was a British airline pioneer who
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The SG-VI-C was the first single-rotor helicopter built in the British Commonwealth to fly, but Sznycer judged the airframe to be suspect and too heavy.

came to the U.S. as the wartime British Transport Auxiliary Service representative assigned to recruit American civilian pilots (including female aviators such as Jackie Cochran) to serve as ferry pilots. Introductions were made to a Montréal businessman, J. Ernest Savard, who owned Provincial Transport (a bus company) and who, with some other prominent Montréal and Toronto investors willing to fund the helicopter scheme, formed Intercity Airways.

As part of the project’s early promotion, Savard said the helicopter would fly on routes that complemented his bus service, widely seen as a potential market for helicopters in 1946.

The Sznycer-Gottlieb SG-VI-C was conceived as a three-place helicopter constructed of tubular steel with a four-blade main rotor system and a four-blade tail rotor. Power was provided by an air-cooled 178 hp (133 kW) Franklin 6A4-165-B3F piston engine, manufactured by Aircooled Motors Corp. Early studies called for three versions – a long-range single-seater, a medium range two-seater, and a short range three-seater. All were powered by the same Franklin engine. Empty weight was expected to be between 1,550 and 1,650 lb (700 – 750 kg) with a maximum gross weight of 2,300 lb (1040 kg). The design featured a four-blade, fully flapping main rotor with a diameter of 35 ft (10.7 m). The tail rotor had a diameter of 5 ft (1.5 m).

Work on the helicopter began in Montréal during August of 1945. Production of components was subcontracted to more than three-dozen companies in Canada and the U.S., with the final assembly performed by Engineering Products of Canada at a factory at 5035 Ontario Street East, just 4.5 miles (7.2 km) from the Palais des congrès de Montréal. Among the suppliers was Frank L. Stulen's Parsons Corp in Traverse City, Michigan, which manufactured the rotor blades.

During October of 1946, the new, but still-unflown helicopter was shown to dignitaries, including the mayor of Montréal. On January 7, 1947, it was moved to Montréal’s Dorval Airport (now Pierre Elliott Trudeau International Airport) where flight testing was initiated.

During the spring of 1947, the new helicopter (registered CF-FGG-X) made a series of tethered flights piloted by Henry Eagle, Jr. of Hackensack, New Jersey. At 29, Eagle already had logged 500 hours in various Sikorsky, Bell, Firestone, and Piasckie helicopters and would later become a full-time pilot for Bell. On July 9, 1947, with Eagle at the controls, the SG-VI-C – Canada’s first practical helicopter – made its first free flight. It was airborne for five minutes and reached an altitude of 6 to 8 feet (1.8 to 2.4 meters).

The SG-VI-C was the first four-blade fully-articulated helicopter ever flown. It was also the first single-rotor helicopter built in the British Commonwealth to fly, taking to the air two weeks before Bristol’s 171 (in England) on July 27, 1947.

Throughout the SG-VI-C program there were a series of clashes between the design team and the investors, especially when competent aviation workers were dismissed by Engineering Products of Canada management. The latter had no background in aviation, thus giving credence to accusations of malfeasance.

Sznycer also claimed that the
original airframe suffered from poor workmanship and had been made without professional inspections. He convinced the investors that a new, lighter, airframe was required. This became the SG-VI-D Grey Gull. Among other changes, it featured a nose-wheel, instead of a tailwheel. Curiously, it carried the same CF-FGG-X registration as the SG-VI-C.

**The Grey Gull**

The first SG-VI-C had been built and flown in 18 months. The production model, the SG-VI-D “Grey Gull,” was built in seven months and was flown on February 6, 1948, again by Henry Eagle Jr., near the Canadian Pacific Airlines hangar at Dorval Airport.

The specifications for the SG-VI-D as reported in *Flight* magazine on April 15, 1948 (with metric equivalents added) were:

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine</td>
<td>Aircooled Motors</td>
</tr>
<tr>
<td></td>
<td>[Franklin]</td>
</tr>
<tr>
<td></td>
<td>6A4-165-B3F</td>
</tr>
<tr>
<td>Gross weight</td>
<td>2,375 lb [1,077 kg]</td>
</tr>
<tr>
<td>Weight empty</td>
<td>1,700 lb [771 kg]</td>
</tr>
<tr>
<td>Disposable load</td>
<td>675 lb [306 kg]</td>
</tr>
<tr>
<td>Main rotor</td>
<td></td>
</tr>
<tr>
<td>Diameter</td>
<td>34 ft [15.4 m]</td>
</tr>
<tr>
<td>Solidity</td>
<td>0.044</td>
</tr>
<tr>
<td>Speed</td>
<td>279 rpm</td>
</tr>
<tr>
<td>Tail rotor</td>
<td></td>
</tr>
<tr>
<td>Diameter</td>
<td>5 ft 2 in [1.6 m]</td>
</tr>
<tr>
<td>Solidity</td>
<td>0.08</td>
</tr>
<tr>
<td>Speed</td>
<td>1875 rpm</td>
</tr>
<tr>
<td>Length</td>
<td>30 ft 10 in [9.4 m]</td>
</tr>
<tr>
<td>Height</td>
<td>9 ft 3 in [2.8 m]</td>
</tr>
<tr>
<td>Track</td>
<td>9 ft [2.7 m]</td>
</tr>
<tr>
<td>Disc loading</td>
<td>2.62 lb/sq ft [12.8 kg/m²]</td>
</tr>
<tr>
<td>Power loading</td>
<td>13.35 lb/hp [8.1 kg/kW]</td>
</tr>
<tr>
<td>Maximum rate of climb</td>
<td>850 ft/min [15.5 km/hr]</td>
</tr>
<tr>
<td>Maximum forward speed</td>
<td>90 mph [145 km/hr]</td>
</tr>
<tr>
<td>Cruising speed</td>
<td>80 mph [130 km/hr]</td>
</tr>
</tbody>
</table>

Work stopped on the SG-VI-D in March of 1948 as expenditures passed the $250,000 limit set by investors. Additional funding was eventually provided, but it was not until October 1949 before flight testing could be resumed. By then, Alan Bott – an experienced Sikorsky pilot – had taken over as test pilot.

Refinement of the design continued until certification flight and ground testing began in June 1950 in the able hands of Jack Godsey, a former USAF helicopter pilot from Willow Springs, Missouri. Godsey was assisted by Alexander F. Soutar, a pilot who commuted from Oshawa, Ontario to Montréal on weekends to fly the tethered helicopter during extensive ground endurance runs.

Both pilots would later have long and distinguished careers. Al Soutar became Canada’s first commercial helicopter pilot, and during the mid-1950s, became general manager of Kenting Helicopters. During the early
1980s, he became president of Craig Dobbins’ Sealand Helicopters. Jack Godsey remained in Canada and later settled in British Columbia flying for Okanagan Helicopters.

The final acceptance testing by the Department of Transport (DoT) began in January of 1951 under pilot Jack Charleson and DoT project engineer M. Jelenick. Both worked closely with Jack Godsey. By that date, the helicopter had made a total of about 350 flights.

Testing started on January 29, 1951. Jack Charleson, who had attended the U.S. Army helicopter school at the end of the War and flown some of the early Bell and Sikorsky models imported to Canada, soloed the SG-VI-D after four check rides lasting a total of 16 minutes.

The certification flight test program included five consecutive days of flying “regardless of weather with no maintenance other than visual inspection and greasing,” three power off landings, and five consecutive autorotative landings – with two at full gross weight (including an observer.) Ambient temperatures at the test site ranged from -26º F to +15º F on the warmest day. Testing culminated on February 2, 1951 with the prescribed autorotations. The DoT granted the SG-VI-D a Certificate of Airworthiness on March 15, 1951, making the SG-VI-D the first helicopter to be designed, built, and certified in the British Commonwealth.

Intercity upgraded the engine to a Franklin 6A4-200-C6 rated at 200 hp (150 kW) after an in-flight shutdown on April 5, 1951. The aircraft was then redesignated as the SG-VI-E and marketed to potential customers. Additional flight testing continued at Dorval airport through mid-July. The following month it was demonstrated to the Royal Canadian Air Force in Ottawa. These latter were probably the SG-VI-E’s last flights. Former Sikorsky veteran Robert L. Nields also made three flights with the helicopter.

Vacationing in Hollywood, Florida, Gottlieb was interviewed by the Miami Herald (published March 15, 1951):

“The field of helicopters is wide open,” said Miss Gottlieb, “and unfortunately it took the Korean War to make people appreciate them. A small group believed in them, but the majority of people looked at helicopters as toys. Actually,” she continued, “they are a tool which can be used for many things.”

When asked why she chose the helicopter field rather than airplanes, Miss Gottlieb stressed the fact that they were much more fascinating than planes because both mechanical and aeronautical engineering must be applied to them. Nothing is simple; the whole design must be taken into consideration in each phase. The building of a helicopter is like building an automobile and then building an airplane.”

Miss Gottlieb is the only woman member of the American Helicopter Society. She is also a member of the Society of Automotive Engineers and the Institute of Aeronautical Sciences [now AIAA].

Whatever sales prospects the SG-VI might have had probably disappeared the moment the Korean War erupted in June 1950. This conflict triggered large military orders being placed with what until then had been struggling U.S. helicopter manufacturers.

The Grey Gull never entered production. With the advent of the war and government orders going to established manufacturers like Bell and Sikorsky, continued development of the SG-VI could not be justified. Accordingly, its financial backers evaporated and the project came to a close.

In 1953, it was reported that the SG-VI-E had been acquired by Victor Abrams, Vice President of Can-American Helicopter Corp. in Montréal, and that it had been shipped to a warehouse somewhere in the New York area. Nothing would be seen of it for the following fifty years.

BS-12 Omega

The collapse of the Intercity Airways partnership did not dampen Bernard Sznycer’s enthusiasm for helicopters. Back in New York, he found new investors to fund the development of a new design, his twin-engine utility BS-12D1 Omega helicopter powered by a pair of Lycoming O-540 air-cooled engines. The BS-12 had been developed in New Bedford, Massachusetts, and first flown by test pilot Fred “Slim” Soule on October 29, 1956. Three BS-12s were built.

Following a lengthy flight test program, the helicopter was certified by the U.S. Civil Aeronautics Authority (the forerunner to the FAA). A turbine version was proposed but never developed. Shortly after the BS-12 received its certification, its corporate partnership was dissolved and the company closed its doors. Interestingly, Sznycer’s

The SG-VI used two stacked two-bladed rotors with “plastic-type” blades. It was the world’s first four-blade fully-articulated helicopter ever flown.
BS-12-related patents (for a helicopter that could carry five people or operate as a flying crane) resulted in royalty payments from Sikorsky for many years following the company’s dissolution.

**Postscript**

Bernard Szynicer devoted most of the 1960s to the arts. He also translated the Anton Chekhov play *The Gull* from Russian to English. On November 30, 1970, he suffered a fatal heart attack while walking through Kennedy Airport.

Selma Gottlieb returned to the U.S. when the SG-VI was grounded. In 1954, she married Harold Brodsky and started a family. She later became well known for her work with a number of Philadelphia philanthropic and community organizations. She became the longest living member of Meadowlands Country Club and its bridge club, having joined in 1951. Selma Gottlieb Brodsky passed away of heart failure at the age of 90 on March 18, 2011.

**Where is the SG-VI?**

During the mid-1970s, Larry Milberry, a Toronto high school teacher and aviation historian, decided to research the elusive SG-VI helicopter in order to complete a chapter in *Aviation in Canada*, his first hard cover aviation book.

He eventually contacted Katharine Segava Szynicer, Bernard Szynicer’s widow, who was now a prima ballerina, an accomplished actress, and an acting teacher. She was then living in New York City. Miraculously, she had kept her late husband’s correspondence from his years in the helicopter industry.

When published in 1979, *Aviation in Canada* became one of Canada’s top-selling aviation books and introduced many aviation fans (including this writer) to the story of the SG-VI Grey Gull. This information later was expanded upon in several other aviation books published by Milberry’s Canav Books publishing house, becoming the most complete history of the SG-VI then available.

Milberry and Segava Szynicer tried to substantiate the persistent rumors that the Grey Gull was still stored in a waterfront warehouse in Brooklyn, New York within clear site of the Manhattan skyline. In 1987, Milberry made contact with the brothers Louis and Simon Srybnik of S & S Machinery in Brooklyn and confirmed that the helicopter still existed. An effort to secure it for the Canadian Aviation Museum, Canada’s national museum, failed to meet with any success. Somewhat frustratingly, the museum failed to provide much impetus to ensure that funding might be provided if the historic helicopter was offered for sale. Reports surfaced infrequently...
that the Srybnik’s wanted to see the helicopter on display in a museum, but no benefactors could be found to meet their terms.

In 2002, Byron Reynolds decided to pursue the elusive Grey Gull for the Reynolds-Alberta Museum in Wetaskiwin, Alberta. This museum contains Canada’s second largest collection of historic aircraft. These have been acquired for the museum through the Reynolds Heritage Preservation Foundation, a family charity.

Reynolds sent aircraft preservation expert Richard de Boer to New York City to confirm the rumors that the helicopter was intact and possibly acquirable. “I met Simon Srybnik in a big old warehouse on the Brooklyn waterfront opposite Manhattan and was led to the back of the building where the SG-VI had been lowered to the floor from its storage location in the rafters of the building. The helicopter was unchanged from its last public appearance 50 years earlier.”

The Reynolds-Alberta Museum was fortunate to receive financial support to repatriate “cultural property situated outside Canada that is related to the national heritage.” In late 2002, the SG-VI-E was retrieved from its warehouse home of a half century and returned to Canada for permanent display as part of the Reynolds-Alberta Museum collection.

Changes at AHS Headquarters

AHS International has sold its headquarters buildings after more than 30 years in Alexandria, Virginia. The existing buildings were antiquated and in constant need of repair. New spaces are being leased a few miles away. The new address after October 15, 2014 will be AHS International, 2701 Prosperity Avenue, Suite 210, Fairfax, VA 22031. The new spaces, although much smaller, feature a more modern IT infrastructure, and will be much more economical.

In addition, the AHS Director of Administration, Holly Cafferelli, is leaving the Society in late August. Holly joined the Society in June 2006 and took over more and more responsibility during her tenure here. We wish her all the best for her exciting new career plans and bid her a sad farewell.

Betty Chen will be taking over Holly’s role and has already started at AHS headquarters. Betty has an interesting background that is both technical and administrative. Betty was most recently teaching electrical engineering and robotics courses to grades 2-7 as part of a STEM (science, technology, engineering and mathematics) program at Ascendly. Betty also is fluent in Mandarin and proficient in Cantonese and Spanish, and has worked in technical and administrative roles in China, Argentina and the U.S. We are very happy to welcome Betty aboard!