



**THE PROBUS CLUB
OF PERTH**

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Probus meets the first
Wednesday of each month,
Sept. to June.

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Apropos

As another summer slides with starts and fits into the cool colours of autumn, we find ourselves once again bombarded by political noise in the face of a federal election. The economy falters and the dollar plummets, but the federal government miraculously declares a surplus after four consecutive years of deficit. It seems the social guidance systems we have trusted all our lives are becoming as unbalanced and unpredictable as our climate. If we are to preserve this marvelous country, we must assume our responsibility as citizens and ensure that our vote is cast on October 19. Let us all do that.

(Apropos reflects the views of the Editors but not necessarily those of the Club.)

Dwayne Price and Greg Holbrook

~ "From Hand Signals to Satellites"



Gardie Church thanking speakers Dwayne Price & Greg Holbrook

On September 3, a lingering summer day on which many members were elsewhere taking advantage of the exceptionally fine weather, Dwayne Price, Manager, Field Operations, Information Management, NavCan, was assisted by Greg Holbrook, a pilot and former Inspector, Transport Canada, in presenting an illustrated overview of the history of flight and controlled airspace in Canada.

When thinking about the development of powered flight, most people think immediately of the famous Wright brothers and their first flight experiments at Kitty Hawk, NC. However, man-controlled heavier-than-air constructions in the form of kites were plying the skies in China at least 3,000 years before that. In fact, the Chinese invented a flying rotor toy, precursor of the helicopter, at least as early as 400 BC. Nonetheless, manned craft did not take to the air until 1783 when the Montgolfier brothers of France constructed a hot air balloon that carried them into the sky. By 1884 the French had rigid lighter-than-air dirigibles that were driven by electric motors and steerable so long as wind speed did not exceed the propulsive power of their drive motors. However, not until December 17, 1903, did the Wright brothers succeed in their famous first sustained and controlled heavier-than-air powered flight.

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Hand Signals to Satellites.....continued

The rest, as they say, is history and today we take air travel for granted and hardly give a thought to the complex control processes that it takes to get us from one airport to another, substantially regardless of the weather.

As Dwayne and Greg further informed us, flight control has come a very long way from the visual navigation of the pioneering pilots and the “dead reckoning” of calculating one's current position using a previously determined position, or fix, and advancing that position based upon known or estimated speeds over elapsed time and course.

In the 1920s the United States postal service began airmail delivery. To aid those first brave pilots, approximately 1,500 airway beacons were constructed to guide pilots from city to city along routes covering 18,000 miles (29,000 km). By 1928 the automatic direction finder (ADF) had been invented and is still in use today. The ADF permitted a pilot to tune to a particular radio frequency and follow that signal to its source. In the early days, AM radio stations were often used to guide pilots from one city to another.

The first landing of a scheduled U.S. passenger airliner using an instrument landing system (ILS) was on January 26, 1938, when a commercial flight from Washington, DC, to Pittsburgh, PA, landed in a snowstorm using only the ILS. That first version of ILS provided the pilot with a two dimensional display of his position with respect to the runway using several ground-based radio signals.

By 1940, we had Radio Detection and Ranging (RADAR), invented in Great Britain and now used worldwide for navigation, collision aversion and intrusion detection. In 1942 the Royal Air Force introduced the hyperbolic navigation system (HNS) based on the difference in timing between the reception of two radio signals. Very high frequency Omni-directional radio range (VOR), a type of short-range radio navigation system for aircraft, enabling aircraft with a receiving unit to determine their position and stay on course by receiving radio signals transmitted by a network of fixed ground radio beacons, was in first use by 1946.

During World War II the United States developed Long Range Navigation (LORAN), which is a hyperbolic radio navigation system used to provide a range up to 1,500 miles (2,400 km) with accuracy of tens of miles in position determination. Two towers transmit timed low-frequency signals at precisely spaced intervals. Triangulation of the signals by a receiver permits position determination. LORAN was first used for ship convoys crossing the Atlantic Ocean, and then by long-range patrol aircraft, but found its main use on the ships

and aircraft operating in the Pacific theatre. LORAN is still in use today for sea and air navigation.

In the 1960s Secondary Surveillance Radar (SSR) was developed. SSR is a radar system used in air traffic control. SSR not only detects and measures the range and bearing of an aircraft, it also requests identity and altitude from the aircraft itself. SSR relies on each aircraft being equipped with a radar transponder that replies to every interrogation signal by transmitting a response containing the identity and altitude data. Modern versions of SSR are now used by all airport control towers to manage their air traffic loads.

In the 1980s modern electronics enabled the wide adoption of Inertial Navigation Systems (INS). INS is a navigation aid that uses a computer, motion sensors (accelerometers) and rotation sensors (gyroscopes) to continuously calculate via dead reckoning the position, orientation, and velocity (direction and speed of movement) of an airplane, ship or spacecraft without any need for external references. INS became very accurate and reliable with the invention of the ring laser gyroscope, which operates with virtually no moving parts. INS is used today to send spacecraft to the moon and other planets, as well as guiding ships and aircraft across vast expanses of ocean.

By 1993 the Global Positioning System (GPS) developed and deployed by the US Air Force was declared fully operational. In 1996 President Clinton recognized the importance of GPS to civilian users and issued a policy directive declaring GPS a dual-use system provided freely to all. The first GPS receiver weighed 50 pounds (24 kilos) and could only be afforded by the US military. Today you have one in your cellphone, another in your tablet computer and yet another in your automobile if it is a recent model. GPS has become such an integral part of our society that life without it is difficult to imagine. Of course, it has also been adopted by aircraft control systems and provides the highest accuracy of any external signal system.

Beginning in 2006 the United States started rolling out Automatic Dependent Surveillance – Broadcast (ADS-B). ADS-B is a cooperative surveillance technology in which an aircraft determines its position via GPS and periodically broadcasts it, enabling it to be tracked. The information can be received by air traffic control ground stations as a replacement for Secondary Surveillance Radar (SSR). It can also be received by other aircraft to provide situational awareness and allow self-separation. All aircraft operating in US airspace are mandated to carry ADS-B transceivers by 2020.

So we learned that we have indeed come a long way in navigation from hand signals to satellites. Thank you Dwayne and Greg for the history lesson.

Lunch After October Meeting

To be held at The Red Fox Restaurant
80 Foster Street, Perth



Personal Profile ~ Bill Kennedy



As tradition dictated, our new President, Bill Kennedy, delivered his personal profile, and did so with the humility and tongue-in-cheek humor that so characterizes him.

Born and raised in British Columbia, Bill earned a Bachelor of Commerce and Public Administration from the University of British Columbia. After commencing his career he pursued a Masters of Business Administration, but work and family commitments got in the way of completing that. However, after retiring from full time work he enrolled at the University of Northern British Columbia and earned a Masters of Arts in Political Science.

Bill began his career as a labor relations trainee with BC Hydro, but soon learned that big organizations were not to his liking and he accepted a position as the deputy clerk/treasurer of Squamish, BC. After Bill's first week at that job, the clerk/treasurer had a nervous breakdown (Bill likes to believe that he was not responsible) and Bill ended up as clerk/treasurer of Squamish in spite of never before having attended a municipal council meeting. With the help of a very kindly deputy minister and a bevy of provincial and municipal officials, Bill managed to survive without himself experiencing a nervous breakdown, which speaks volumes about his character.

From 1965 through 1968 BC incorporated regional districts. The regional districts are somewhat akin to Ontario counties in their function. Bill became the first secretary/treasurer of the Squamish Lillooet Regional District which comprises an area of 16,310 km² and now delivers a range of regional, sub-regional and local services to approximately 38,000 residents living in four member municipalities (Lillooet, Pemberton, Whistler, Squamish) and four unincorporated electoral areas. Bill later moved to Dawson Creek where he became the first and, for a period of time, the only fulltime employee of the Peace River/Laird Region. Having been successful in that position, Bill was invited to become the Administrator of the Fraser/Fort George Regional

Districts. In those early days, no one really knew the role that regional districts were to play and Bill's greatest challenge was to explain their role to both the public and to provincial civil servants. His first sorely-learned lesson was to refrain from saying "Hello, I am from the government and I am here to help"!

In spite of his continued success, Bill tired of political wrangling and travel, so he accepted a position as comptroller/treasurer of the city of Prince George, which was then the third largest municipality in BC, a position that he occupied for 20 years until he retired. On retirement he did some consulting and taught Public Finance and Municipal Administration at the University of Northern British Columbia.

In his private life, Bill has been married to Yvonne for 43 years. They have two children, one who lives in Ottawa, has two children, and works as an economist for the Department of Finance, and one who lives in London, England, and works as a speech pathologist.

After complete retirement, Bill and Yvonne decided it was time to leave Prince George in search of a better climate and closer proximity to their grandchildren and London, England. One of Bill's colleagues recommended Perth, and following extensive research they selected a home on the Tay River near Port Elmsley. They love their access to the open country, hiking trails and the many activities available in this region while still having easy access to the big city and the international airport.

Thank you, Bill. We are very pleased that you and Yvonne chose this area for your retirement.

Speakers' Corner



Our speakers on October 7th will be **Helga and David Zimmerly**, who will give an illustrated talk on the risk-taking inherent in making an extended voyage by cruising sailboat. The risks discussed will range from the physical to the emotional and the financial, from storms to pirates to unstable political situations. The couple spent ten years cruising half-way around the world, from 1986 to 1995, via the Canadian Arctic, Europe, Africa and Asia before settling down in BurgessWood. They are in the process of writing a memoir about their adventures and Helga will also discuss the risks and rewards associated with that project.

For a hint of what you can expect, [please click here](#) for a sample from their e-book "The Voyage of Erasmus Volume 1 - Ottawa to the Arctic".

Management Team Notes

- Our club membership has been steadily increasing over the past year and currently stands at close to the cap of 150, although it is expected that some members may choose not to renew their membership this year. A notice to amend the Club by-laws in order to remove the membership cap will be presented at the October meeting ~ see [club bylaws](#).
- There will be an informal poll of members at the October meeting to see if members would be interested in having meetings in July and August starting in 2016.



AGM Notes

The AGM portion of the September meeting went off as expected with the following conclusions:

- The new slate of officers, as proposed in the Summer edition, was elected. The names of the new executive can be seen on the side-panel on page 1 of this issue.
- The financial report included in the Summer Probian was accepted.
- Although Jean Crowley was proposed as Financial Reviewer for this year at the meeting, it was subsequently decided that she is not eligible, since she remains a member of the Management Team this year, in her role as Past President. Sheila Hurren has agreed to step in as Financial Reviewer this year.

Sad News

The members of the Management Team are devastated to report the passing of two of our cherished members in the past month ~ John Kerr-Wilson on August 17th and John Aikman on September 11th. Our sympathies go out to their partners and fellow Probus members Elizabeth Kerr-Wilson and Irma Aikman, as well as their families.



John Kerr-Wilson



John Aikman

Quote for the Month

“No man is great enough or wise enough for any of us to surrender our destiny to. The only way in which anyone can lead us is to restore to us the belief in our own guidance.” – Henry Miller

Special Events

- **September 29** - Our Fall trip to:
1) [Lavender Ridge Winery and Vineyards](#), 2) [Norway Bay Golf Course](#)
3) [Coronation Hall Cider Mills](#) and 4) [Log's End](#). This trip has been sold out. Participants are asked to be at [The Factory](#) parking lot 40 Sunset Blvd before 8:00am to catch the bus. More details in the [Summer Probian](#).
- **Nov 19** - Dinner & Theatre event - dinner at 5:30 at The Stone Cellar followed at 8:00pm by a play at the Studio Theatre. The play is “Dinner with Friends” ~ A Pulitzer prize-winning comedy drama about marriage, divorce, and the perils of middle age, directed by Jeremy Dutton. Theatre tickets are \$17 each. Dinner will be a choice of 4 entrees ~ Lamb (\$28), Steak ((\$28), Chicken (\$22.75), or Fish (\$26). Please purchase your theatre tickets and indicate your meal choices at the October meeting, if possible, or contact Mary Kilgour ~ [More details](#).
- **December 4** – Mark your calendars now for our Christmas party at the Lion's Hall. Tickets will be \$35. Sign up will take place at the November meeting.



The Commemorative Bench

We are half way there!

Thanks to the generous donations of members present at the September meeting, slightly more than half of the estimated \$1,600 cost of the Commemorative bench has been raised. The idea is to donate the bench to the Town of Perth to recognize both the 20th anniversary of the Perth Probus Club and the 200th anniversary of the Perth Military Settlement. We encourage members who have not yet had a chance to make a donation to consider doing so at the next meeting. While the amount will be left entirely up to you, if most of our members were to contribute in the \$10 to \$15 range, it should cover the costs. Any additional funds will be applied to our 20th Anniversary Dinner Party fund. A great location has been secured for the bench ~ [see poster](#).

