



B R I E F I N G S

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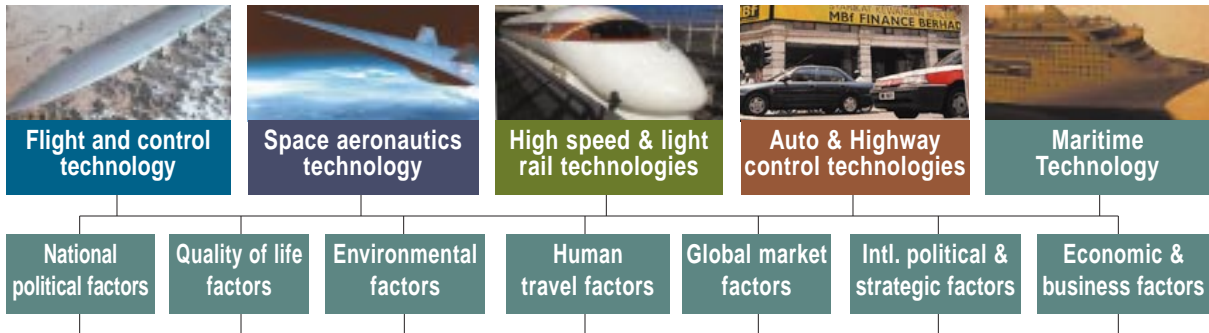
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INSTITUTE GROUP PREDICTING AVIATION ALTERNATIVES FOR FUTURE TRANSPORTATION

ADVANCED FLIGHT TECHNOLOGIES, NOT YET WELL-REPRESENTED IN TRANSPORTATION PLANNING, GET A CAREFUL LOOK BY THE HILLER AVIATION INSTITUTE TECHNICAL ADVISORY COMMITTEE.

The Goal:
Move people and goods with maximum ease and efficiency in dynamic global conditions.

The Process:
Each relevant technology is evaluated in concert to ascertain its integral role.



The trouble is (and everyone knows it) the "process" of long-term transportation planning with all technologies properly integrated is not yet happening as this chart suggests it must, and no one is more concerned about it than Hiller Aviation Institute's Technical Advisory Committee Chairman Dr. Robert Cannon. In his office at Stanford's Aeronautics & Astronautics Department, he says the committee "may not fix the process, but we can at least help expose transportation development to the potentials of future aviation technology." Cannon's experience as former U.S. Assistant Secretary of Transportation taught him, "if you face a difficult problem and there are three ways to go about solving it, do all three."

Today's ground and air congestion, reaching unsustainable proportions in Silicon Valley, are paralleled in other major population centers. In Europe, air travel has become so stressed that airlines book many connecting passengers on high-speed trains. The U.S. is painfully behind in such alternatives, and Bob Cannon suggests that underscores the need to integrate advanced flight and air

The result:
New Millennium
Holistic Transportation Plan

control systems with intelligent surface transportation. "At Hiller Aviation Institute," says Cannon, "the charter of our Technical Advisory Committee is to predict technologies, air vehicles and traffic management systems which could become valuable realities in the next hundred years."

The predictions, founded on interacting factors in the global environment, are progressively being distilled from the experience and work of committee members. The reservoir is impressive: it includes former product development managers of Boeing and Douglas, leaders in GPS and air traffic guidance systems, vertical flight specialists, and scientists from NASA and Stanford's Aero/Astro Dept.

"Our role for Hiller is not as a research group, but as an advisory body, sharing the intellectual fruits of our individual professions," Cannon says. "We are assessing likelihoods: what aviation solutions are needed, how they are likely to happen. Much of what we predict will download to interactive displays in the museum, and in the institute's educational programs with academic institutions."

Next BRIEFINGS: a "Tunnel in the Sky" prediction. ■

History-making lady of the sky

Museum guest:

Vickers Vimy “Silver Queen” rides again

VICKERS VIMY AIRPLANES WERE BORN TO BOMB, BUT MISSED THE DRAFT AND FLEW ON TO PROVE THAT LONG-DISTANCE AIR TRAVEL WAS A REALITY.



San Francisco's Peter McMillan came up with a replica Silver Queen after 22,000 manhours of work requiring over 3,000 pages of new drawings based on originals he found in a British museum in 1992. The huge biplane first flew in 1994, only 18 months from the start of the project. Covered by National Geographic in all its subsequent flying adventures, the plane is featured again in the May 2000 issue.

The visit of the replicated Vickers Vimy “Silver Queen” to the Hiller Aviation Museum on May 20 and 21 recalls a period in aviation history marked by adventure, and often raw courage.

Originally designed as bomber for the First World War, the twin-engine Vimy emerged into production too late to fight, but the rugged biplane found a prestigious role in life proving that long-range passenger and mail flight need no longer be wishful thinking.

Indeed, the wish was so fervent that in 1919 London's Daily Mail, and Prime Minister of Australia and the government of South Africa tried to outdo each other with cash prizes for the first non-stop flights across the Atlantic, from England to Australia and England to Cape Town. That year a Vimy flew part of the Atlantic, luckily picked up by a Danish steamer. Another flew the entire Newfoundland to Ireland course two months later, and in November a Vimy G-



EAOU (euphemistically nicknamed God ‘Elp All Of Us) took 130 letters from England to Australia. In 1920, a Vimy Silver Queen became the first aircraft to cross the African continent. Fortunately, there were plenty of Vimys built, because the African venture involved two more downings owing to one leaky radiator and one ground altercation in the hot and high

wind conditions over the continent.

The Vickers Vimy emerged as a glorious achievement in aviation, and in 1992 young San Francisco investment broker Peter McMillan found a set of Vimy blueprints in a British museum, and built one in California. In 1994 his Silver Queen completed a 16,000-mile UK-to-Australia flight sponsored by Shell and National Geographic, both sponsors of the 1919 flight. The new Queen, world's largest biplane, is now strutting proudly again in flight demos countrywide.



ANOTHER DISTINGUISHED SKY LADY: The Silver Queen above was built for war and instead made history in peacetime pursuits. “Miss Los Angeles” (a replica now starring in the museum) was built to race, but became one of a genre of designs of the 1930s which provided the data for World War II fighters. (See next BRIEFINGS).

Hiller Aviation Institute invites you to an extraordinary event in our *Transportation Forum Series*.

Program 2:

Madame Général Valérie André

The noted “Angel of Mercy” will share her daring experiences that made aviation history in this special appearance.

Tuesday, June 13 7:00 pm to 8:00 pm

Free admission to the Forum.

Please call 650-654-0200 before June 9 to advise if you'll join us. Seating is limited!



Hiller salutes French “Angel of Mercy”

AVIATION HISTORY, MILITARY HISTORY AND MEDICAL HISTORY WERE MADE, AND THE GLASS CEILING SHATTERED, BY ONE WOMAN IN THE FRENCH-INDOCHINESE WAR IN THE EARLY 1950’S. SHE IS VALERIE ANDRE.

I ndochina, April 1952: “It is impossible to land inside the small fort. I fly around it at low altitude and notice that men are crouched along the walls and under the low hanging roofs. ...Come to think of it, there must be some Vietminh sharp-shooters around, who zero in on the defenders each time they leave their shelter. At that moment, a machine-gun bursts...The Hiller settles down; I open the door and motion to the soldiers; not one of them moves. I insist, I call out; they are paralyzed with fear. I have an urge to swear at them, but the racket of a weapon spewing fire on my right cuts me off. I have a feeling that, this time, the helicopter is irretrievably done for. It must be punctured like a sieve. ... There is no other solution for me, and I jump off the ground. Caught between two fires, I weave the Hiller back and forth in the hopes of throwing off enemy fire. My aircraft flutters like a butterfly...”

These are the words of Valérie André, written in her 1954 memoirs of the French Indochinese jungle war. Her book is “Ici Ventilateur!” (“Here Ventilator!”), that being her fond call-sign used in her mercy flights into the jungle. André’s twin destiny in aviation and medicine was her incredible response to a growing disaster: France’s poorly-equipped, all-volunteer army was suffering increasing losses. The wounded were often isolated and inaccessible to doctors like André, who herself had volunteered at age 27, fresh out of medical school.

The war to block revolutionary Ho Chi Minh from fulfilling his declaration of independence from France in 1946 deepened scars of the French people still reeling from the losses of young men in World War II. Support back home was failing quickly, as it would more than a decade later when the United States tried its wavering hand in Vietnam. To Valérie André, that was all beside the point. People needed to be saved. The



result was the first use of helicopters in battlefield medical evacuation. Observing Lieutenant Alexis Santini loading his Hiller 360 helicopter, red-lettered at two litter patients and a pilot, take off with four occupants, André decided she would learn to fly, perform evacuations from the jungle and then treat the victims herself. What efficiency, she thought! The courageous Santini supported her flight training, and later became her husband.

Her own derring-do, dedication and limitless energy brought André a lifetime of honor. Madame Général Valérie André became a noted neuro-surgeon in the French



Armed Forces; the first female to achieve flag rank in the French military; recipient of the nation’s highest award, the *Grand Officier de la Légion d’Honneur* and many others, including what may be her most distinguishing mark, *Médaille de l’Aéronautique*.

Today, Valérie André lives on a hill overlooking the River Seine and Paris. Her memories include 4,200 hours of life-saving combat missions in Asia and Algeria. A girl from Alsace, fascinated by early aviation, had become one of France’s national treasures. ■

Young Captain Valérie André poses with one of her Hiller 360 med-evac helicopters. It was through the efforts of Hiller Aircraft Company’s colorful French distributor, Commandant Henri Boris, and commercial Vice President Bill Vincent that helicopters first came to be used in Asian jungle warfare. Impressed by Boris and his ubiquitous helicopter demos, the French Air Force organized a Helicopter Rescue Section in Saigon. Vincent today remains a friend and admirer of Général André.

With visions (left) of her perilous Indochina operating area indelible in her memory, Valérie André will share experiences with an American audience during the second in a series of Air Transportation Forums at Hiller Aviation Museum

Museum exhibit news

China Clipper reborn ...upstairs

Ray Atkinson, former executive of the Guy F. Atkinson heavy construction company, enriches his post-corporate life in a way which could be the private envy of many men: building models of historic airplanes. Something about it rekindles the joys of youth as great designs of the past come to life in your hands. But few people would undertake the ambitious task of re-creating an aircraft on the grand scale undertaken by Ray Atkinson in his China Clipper project.

Its building (in an upstairs room of his San Mateo home) is not only a feat in terms of size—one-tenth scale with a 12-foot wingspan—it's also an achievement in accuracy, wrenched from small, imperfect general arrangement drawings and fuzzy photographs. Atkinson produced surprising realism using foam-block shapes covered with thin balsa sheeting, topped with a fiberglass coating and finish paint with hand-rendered insignia.

After more than two years in construction, the Clipper will this summer find a home at the Hiller Aviation Museum, highlighting an important era in commercial airline development. Atkinson contributes the work as part of the museum's volunteer-based efforts to raise public awareness of the relationship between past and future aviation.

It was on November 22, 1935, when the Pan American Airways Martin M-130 China Clipper departed its Alameda, California base for its seven-day 8,200-mile flight to Manila.



Taking only 59 hours and 48 minutes of actual flying time, the trip established the first trans-Pacific revenue mail service in history. Less than a year later the first passengers were treated to the rigors of trans-Pacific travel.

After the attack on Pearl Harbor, two of the three Martin 130 Pan American Clippers donned gray war paint and served their country. The Hawaii Clipper had mysteriously disappeared in 1938, perhaps a pre-war victim of highjacking. The Philippine Clipper, having survived enemy strafing at Wake Island, later in 1943 crashed on a Ukiah, California, mountainside, hopelessly lost in a violent storm. Ironically, the first of the three clippers to enter service had the longest life.

The China Clipper met its tragic end in a peaceful Trinidad harbor after the war, striking a submerged object in a night landing, killing all aboard.

Now this once-grand star in aviation history will live again at the Hiller Aviation Museum, thanks to many months of creative work upstairs by Ray Atkinson.



Supersonic Transport nose job completed

Before the eyes of museum visitors in the main Gallery, Boeing's vision of supersonic travel is being revived as the full-scale preflight SST restoration moves toward completion. The museum Restoration Center is working on the forward 90-foot section of this ahead-of-its-time aircraft, which was the faster, larger American contender in the supersonic race with the Concorde in the 1960s. The museum exhibit now has an operating "droop-snoot" nose section, and during the year will be fitted with full cockpit instrumentation, passenger cabin accommodations and educational displays. [Full SST description in Fall 1998 BRIEFINGS].



Black Diamond skin completes project

The astonishing Black Diamond, a 1910 construction by two shipyard buddies [BRIEFINGS Quarter 3 1999] now has replicated skin covering over its lovingly refinished wooden frame. In May, Restoration Center craftsmen were reassembling the wing structure, installing an engine iden-

tical to the original Roberts 50 hp unit, and a radiator with the original core and new tanks. The airplane was literally re-created in the Center from old pictures, boxes of assorted parts and a determination to bring to life an historically significant airplane created by men who started knowing nothing about flight...only a few years after Kitty Hawk.



Financial Airlift 2000

To acknowledge annual contributions of \$2,500 and above, the institute offers naming or sponsorship opportunities for exhibits or operating facilities. Here are current honorees and sponsors:

<p style="text-align: center;">Atrium Memorial Wall Honor Plaques</p> <p style="text-align: center;">C. Martin Wilmarth & Reynolds Ostram Vern Dallman Joe Pfeifer Daniel Patrick Foster F.E. "Tim" Kingston Capt. Charles H. Weidman, UAL John R. Soward</p>	<p style="text-align: center;">Named-Facility Honorees</p> <p style="text-align: center;">The Lane Mezzanine The Michael King Smith Library The Doyle Conference Center</p> <hr/> <p style="text-align: center;">Memorial Bench Honor Plates</p> <p style="text-align: center;">Sterling Atkinson Ed Bennett & Bette Hall Captain George F. Tondorf</p>	<p style="text-align: center;">Exhibit Sponsors</p> <p style="text-align: center;"><i>747 exhibit:</i> Al and Ellie Silver</p> <p style="text-align: center;"><i>Monocoupe exhibit:</i> Fred Gould</p> <p style="text-align: center;"><i>Fairchild 24 exhibit:</i> Wilson, Sonsini, Goodrich & Rosati Stanford Wind Tunnel John and Daryl Lillie XH-44 Helicopter Roger Quy, Ph.D.</p>
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Membership Application

All memberships are annual and tax deductible.

BECOMING A MEMBER OF THE HILLER AVIATION INSTITUTE AND AVIATION MUSEUM MEANS YOU ARE PARTICIPATING IN THE GROWTH OF MUSEUM EXHIBITS, AND HAVE A ROLE IN THE EDUCATION & RESEARCH CENTER'S GOAL TO ADVANCE AIR TRANSPORTATION.

Individual, Couple, Family, Senior Benefits

- Free admission to museum exhibits
- Museum decal
- Subscription to the institute's quarterly BRIEFINGS newsletter
- 10% discount in the museum Flight Shop

Sustaining, Supporting, and Directors Circle Benefits

- All basic membership benefits listed above
- Member certificate suitable for framing
- Name plate on the Donor Wall plaque

Patron Benefits

- All basic membership benefits
- Individual name plaque on the Donor Wall
- Invitations to new exhibit previews
- Invitation to the annual Donor Recognition Luncheon

Benefactor, Trustees and Founders Circle Benefits

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- Individual name plaque on the Donor Wall
- Invitations to new exhibit previews
- Invitation to the annual donor recognition luncheon
- Choice of supporting a specific exhibit or operating facility; named on Corporate & Individual sponsors' plaque

I want to be a member of the Hiller Aviation Institute and Aviation Museum in the following category:

<input type="checkbox"/> Senior (65+) \$20	<input type="checkbox"/> Supporting \$250
<input type="checkbox"/> Individual \$35	<input type="checkbox"/> Directors Circle \$500
<input type="checkbox"/> Couple \$50	<input type="checkbox"/> Patron \$1,000
<input type="checkbox"/> Family (3+) \$75	<input type="checkbox"/> Benefactor \$2,500
<input type="checkbox"/> Sustaining \$100	<input type="checkbox"/> Trustees Circle \$5,000
<input type="checkbox"/> Founders Circle \$10,000 and above	

New member Annual renewal

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Thank you for your support!

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Check our website
for future events
and membership
information:
www.hiller.org

Coming Events



**June 3
San Carlos
Air Faire**

10 am to 4 pm

You'll enjoy antique
planes, classic cars,
food booths, free airplane rides for ages
8-17 and helicopter rides! Just show up for
a great day of family fun and excitement!



**July 4
Fireworks
and BBQ**

Hiller Aviation
Museum will be

open from 10 am to
9:30 pm for the Redwood City fireworks. A
tasty barbeque will be served with a good
view of the fireworks from our tarmac!
Call 650-654-0200 for details.



**Dr. Burt Rutan sparks record crowd in first
session of Transportation Forum Series**

The intrepid and outspoken designer and pilot of pioneering
planes, Dr. Burt Rutan, worked up an audience of over 300 avia-
tion enthusiasts in March, exhorting the public to pressure the
establishment for long-overdue air transportation solutions.

Speaking from his exceptionally broad, hands-on experience
in engineering, marketing, and management spanning both civil
and military aviation, Dr. Rutan pointed to air traffic manage-
ment solutions as an example of what's needed and eminently
do-able in commercial and business air transportation. He said if
establishment "sluggishness" isn't overcome soon, the demand
will shrink over the years, with the result that aviation may never
fulfill its true potential. A future BRIEFINGS will describe Rutan's
distinguished career and provocative ideas to keep aviation vital.

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Event! Reserve
early! (Inside)

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