

PLANE FACTS, See Page 32.

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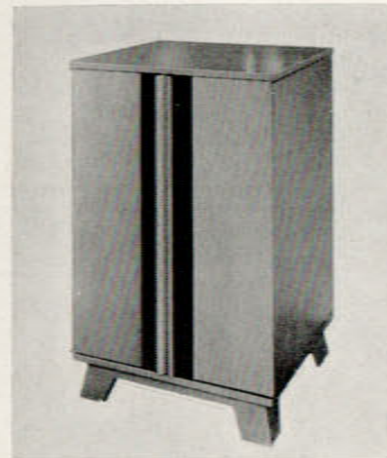


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Honorary Editor-in-Chief, W/C F. GAFFNEY
Editor _____ F/O HARRY O'HARA

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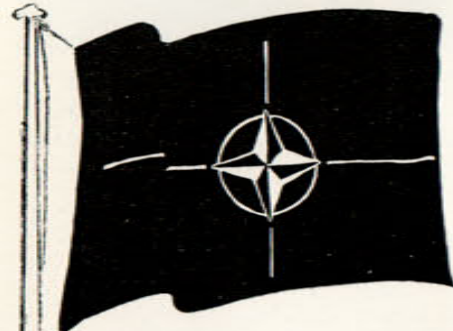
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EDITORIALS

NATO



THE BRAVE blue flag of the North Atlantic Treaty Organization with its white design emblematic of unity flew in a chill wind before Ottawa's Peace Tower on Sunday morning (April 4th) as Cabinet ministers, chiefs of staff and diplomats attended a ceremony marking the fifth anniversary of NATO.

Five years ago Canada joined eleven other countries of the Atlantic community in signing a treaty of collective defence. They all pledged their united efforts to preserving their common heritage and freedom against the immediate threat of aggression. Canada, which played a significant role in preparing the way for the treaty, signed it enthusiastically. For the first time here was a tight alliance (within the rules of the United Nations) which committed the United States as well as the United Kingdom to the defence of Western Europe.

NATO celebrates its fifth birthday this month, and leading officers were both proud and worried. They were proud because they felt that NATO had built military forces beyond most expectations and the international alliance is a going concern. They are worried because they feel NATO forces are still not strong enough, and because they fear public interest may be on the wane. NATO's disappointments have been outside the military sphere. Canada has always been the main country to insist that NATO should be more than a mili-

tary alliance. The famous Article II was the Canadian way of saying that we hoped NATO might be the beginning of an Atlantic Community.

It is well to pause on this fifth anniversary of NATO to reflect how far we have advanced from the fear, instability and illusions of the immediate post-war period; and to face up to prospects which lie ahead. How well have we been doing? In the first place, war has thus far been avoided; aggression has thus far been successfully deterred. Over the last five years the progress of our collective defence efforts has been remarkable.* Finally Canada's stature continues to increase in the eyes of her partner nations who regard her as a rich, booming country and to whom it is sometimes difficult to explain why she is the only one of the 14 NATO powers which has no conscription law.

* (Principal Canadian contributions to NATO are three wings of Sabre jet fighters stationed in France and Germany and the 5,000-strong 1st Canadian Infantry Brigade group in Germany. A fourth Canadian Wing is to be transferred to France this summer. NATO's total defence expenditure in 1953 was roughly \$65,500,000,000, Canada contributing about \$2,149,000,000. Canadians are also sprinkled through various NATO structures abroad, while at home Canada has trained 2,682 aircrew from NATO countries other than Canada since NATO was formed. The breakdown by country: Trained: England, 1,941; Belgium, 101; France, 512; Italy, 36; Holland, 34; Norway 37; Denmark, 41. In training: England, 412; Belgium, 6; France, 332; Italy, 39; Holland, 53; Norway, 26; Denmark, 39; Portugal, 25; Turkey, 18.)

Capt. A. R. Eddie

Capt. A. R. Eddie of the Canadian Air Line Pilots Association is an ex-RCAF instructor, who learned to fly in 1927. Recently the newspapers quoted, and in some cases misquoted, his comments and possibly put him in line for some hard thoughts which are undeserved.

As there may be some who feel very strongly that Capt. Eddie's statement appeared at a highly unpropitious moment, here are some interesting points: (1) Capt. Eddie did not volunteer a statement. (2)

He was telephoned when in Edmonton by a press service in Toronto. (3) It is now all too apparent that, intentionally, only the answers to questions which tied in with current aviation news were used. (4) In all his remarks Capt. Eddie emphasized that he had no desire or intention of passing judgment or comment on any matter currently under investigation. This part of his remarks was conveniently deleted.

It is always regrettable when newsmen deviate from the truth for the purpose of colouring up or creating a situation. This is particularly true when the principal accomplishment of such irresponsibility is aggravation of the grief of accident victims.

With all other Canadians we have good reason to be proud of our air lines. The CALPA is a splendid organization, which constantly contributes to improved flight safety. No amount of the wrong kind of reporting should make us fail to recognize that most of their interests are our own.

No Threat?

MOSCOW advised Turkey at the end of last month that a Turkish-Pakistani pact "cannot fail to damage Soviet-Turkish relations." The Soviet note said that such a treaty "could not be considered as having a defensive basis as neither Turkey nor Pakistan were threatened by anyone."

About the same time Mr. Molotov suddenly discovered hitherto unsuspected virtues in the North Atlantic Treaty Organization. It was indeed such a splendid institution that the Soviet Foreign Minister proposed to join forthwith. He felt, of course that there should be some quid pro quo; the Western states must also agree to join his projected European "security" pact and above all they must scrap the European Army treaty, which Mr. Molotov still regards with profound distaste.

The reaction in Western capitals was somewhat cool, which did not surprise nor indeed greatly depress

(Continued on page 26)

Personalities



F/L and Mrs. R. A. Davies.

F/L R. A. Davies and F/L E. R. G. Haines, two RAF exchange officers who have served at Station Winnipeg for the past two years, will sail for home from Montreal next month on the *Ascania*.

F/L Davies joined the RAF in 1942 and was trained in Canada, graduating from No. 7 AOS at Portage la Prairie in March, 1944. Following operational training on Dakotas at Patricia Bay and Comox, B.C., he joined Transport Command, where he served on Dakotas and Hastings. F/L Davies' operational flying included participation in the Rhine Crossing, trooping from the Far East and finally a session in 48 on the famous Berlin Airlift.

In July 1950 he joined RAF Training Command and was transferred to the RAF Air Navigation School at Thorney Island on the South Coast of England. Here he

was course director of Number 55 Course which, needless to say, "was the finest course ever to leave Thorney Island." In December 1951 F/L Davies arrived in Winnipeg on exchange duties.

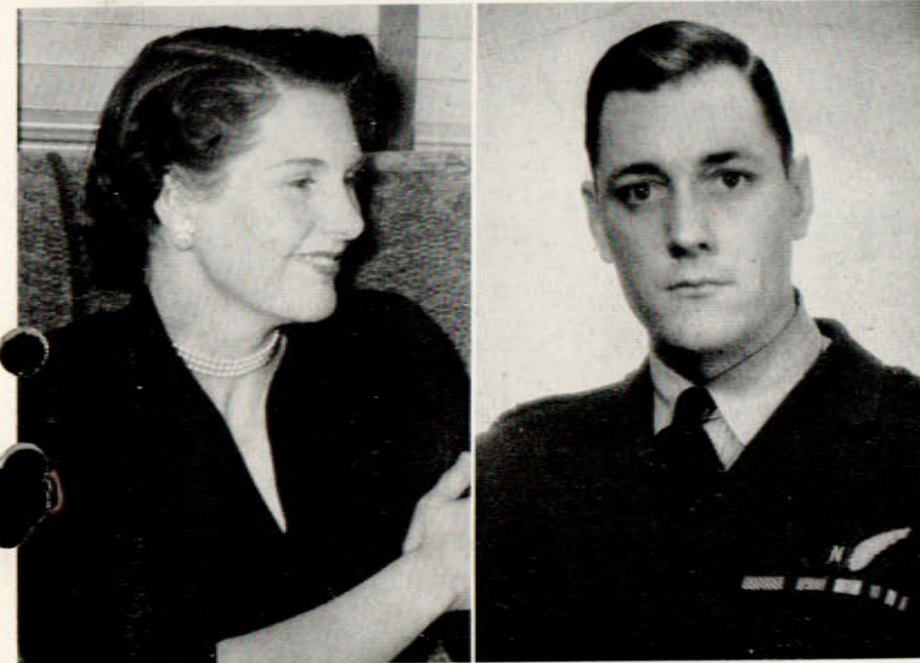
F/L Haines also joined the RAF in 1942 and trained under the British Commonwealth Air Training Plan at No. 6 B & G at Mountain View, Ontario, and No. 8 AOS, Ancienne Lorette, Quebec, graduating in April 1943. Following a

three-week special course in high-level bombing at Dauphin he returned to England in June 1943, where, Upper Heyford was first stop for operational training, followed by heavy conversion on Sterlings and a tour on Lancasters with 49 Squadron of Bomber Command.

Following this, F/L Haines joined an experimental unit under the Ministry of Aircraft Production (later Ministry of Supply) experimenting with high-level bombing. Altitude seems to have had anything but an adverse effect in this case for he had the distinction of joining his unit as a F/S (single) and leaving it five years later as a F/L (married, with two children).

In 1949 he rejoined Bomber Command for a peace-time tour on Lincolns with 214 (Federated Malay States) Squadron, prior to his transfer to Training Command and exchange posting to Canada in December 1951. F/L and Mrs. Haines and their three children (one 100% Canadian, David William, born 30th Jan. '54) have grown very much attached to Canada but are looking forward eagerly to the voyage home.

To the Haines family and to F/L and Mrs. Davies and son, James, their many friends at Station Winnipeg wish a warm cheerio; may your voyage home be a pleasant one and your next posting all you would wish.



F/L and Mrs. E. R. G. Haines.



SUPERSONICALLY SPEAKING

*What Mysteries . . .
What Hazards
Lie Behind the
Sonic Barrier?*

By D. H. "DON" ROGERS
Chief Test Pilot, Avro Canada.

HISTORIANS must take a somewhat dim view of Aviation. Because it refuses to stand still.

It is only a little more than 40 years since Sir Alliot Verdon Roe, the founder of A. V. Roe & Co. Ltd. in England was arrested for disturbing the peace by flying an aircraft he had designed and built himself at an airspeed of about 50 miles an hour at an altitude of some 35 feet. Today, newspapers carry accounts of people complaining because the disturbance created by aircraft exceeding the speed of sound and producing "sonic booms".

Not so long ago, the "sound barrier" challenged Aviation. Now it has been breached. And Mach numbers exceeding 2.0 achieved by research aircraft make "transonic" seem old-fashioned. An engineer can now design an aircraft to achieve the speed of sound with considerable confidence. Thus the problems of transonic flying are more or less falling into the historic category.

A few years ago, terminal velocity dives and pull-outs were the ultimate tests of a fighter. If it would hold together during this manoeuvre, that was the final test of structural integrity. Sometimes the aircraft would develop a flutter which would cause them to break-up during the dive or they would fail to recover and dive straight into the ground. These misfortunes were generally attributed to weakness of structure or poor balance of controls.

The engineers of those days may have known something of the effects of compressibility, but it was not until the early 1940's that the pilots began to realize that there were some hidden factors involved in very high speeds.

Early in the Second World War, incidents began occurring during operational flights which indicated to the Service pilots that something more than structural integrity was involved during high speed dives. The advent of the Turbo Supercharger made it possible for such aircraft as the Lightning and the Thunderbolt to reach very high altitudes and, if these aircraft were dived during descent, they were also capable of reaching very high Mach numbers. In the case of the Lightning, the aircraft would become progressively more nose heavy

(Continued on page 20)



Current Affairs...

by DR. L. A. GLINZ

Current Affairs Adviser—Joint Services.

CHOU EN-LAI



Chou En-Lai photographed during recent speech-making tour.

RED CHINA'S ASTUTE REPRESENTATIVE AT THE GENEVA CONFERENCE

AT THE Berlin Conference of foreign ministers in February, Mr. Molotov proposed that the Big Four invite Chou En-lai, premier and foreign minister of Communist China, to a full-scale peace parley to be held in the spring, suggesting that this would bring peace in Korea and Indo-China and an easing of world tension. Mr. Dulles, American Secretary of State, replied, "Who is this Chou En-lai whose addition to our circle would make possible all that so long seemed impossible? He is a leader of a regime which gained 'de facto' power on the China mainland through bloody war—which became an open aggressor in Korea—which promotes aggression in Indo-China." Mr. Dulles rejected outright a five-power meeting to include Red China.

The foreign ministers at Berlin did agree, however, to a conference in Geneva, April 26, to be attended by China, Russia and the nations which took part in the Korean War. Many Americans objected to this as conceding recognition to Communist China. Mr. Molotov, too, has asserted that Mr. Dulles agreed to treat China as an equal at the Geneva conference. But Mr. Dulles denies all this. He has said more than once that the United States Government has no intention of granting diplomatic recognition to Communist China or voting for its entry into the United Nations. Such an unqualified statement of policy towards Red China is not altogether pleasing to the allies of the United States, including Canada, who favor eventual recognition if certain requirements are met.

The purpose of the Geneva conference, which starts next week, is to seek a solution of the Korean

the Western powers will have to deal in pursuit of this purpose?

*Edgar Snow, writing in the Saturday Evening Post of March 27, characterizes Chou En-lai as "Red China's Gentleman Hatchet Man." Chou, unlike Mao, the President, is not a peasant. He is the grandson of a Mandarin, cultured and capable, educated in American-type schools, proficient in several languages, familiar with Paris, London and Berlin, and a formidable opponent in politics or war. He is both scholar and soldier, Chinese intellectual and

*This paragraph is based on an article by the well-informed news correspondent Edgar Snow in The Saturday Evening Post of March 27.

(Continued on page 10)

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BEARS, BULLS AND PIGS

by F/L J. A. GAUTHIER

THERE WAS ONCE a man who was earning \$10,000 a year through long and successful endeavor in his own line of business. He observed that some of his associates made money from time to time by investing, and feeling confident through his own success decided he could easily handle the stock market. There was just one thing he forgot. It had taken him the good part of a lifetime to reach the \$10,000 a year bracket and, of course, in very short order he lost a considerable portion of his hard-earned and carefully-saved nest-egg.

As you must learn your job, so must you learn how to invest properly. Here are a few simple rules to keep the beginner out of trouble:

- (1) Make sure that you know the broker you are purchasing your stock from. There are several in Winnipeg. (VOXAIR advertisers to be acceptable must be reputable.)
- (2) Don't take tips, especially those

tantalizing long-distance telegrams and phone calls from a well-known city in Ontario. Always investigate before you invest; information can be obtained from your broker or handbooks which can be purchased on industrials, mining, stocks or oils. The company's financial statement is always a wonderful source of information. Remember—no stabs in the dark or you might be the one getting stabbed. (3) Never be in a hurry—and that goes double. Take your time; it's the return of your money that's important, not so much the return on your money.

Now, let's get down to the business of buying a stock. As we don't want to look self-conscious, and also want our money returned, we pick a nice safe Canadian issue, which we shall call Flora Sekord, which is selling around the figure 14 in the daily stock quotations. Fourteen dollars or fourteen cents—that is the question. Go ahead. Tell the

man you want 1,000 shares of Flora at 14. The instant his face drops you know it is 14 dollars a share. You recover quickly and say, "Oops; I mean 10 shares, please." The broker will put your bid of 14 in to his representative at the Toronto Stock Exchange and within 30 minutes you will probably own the stock. As you have now opened an account you will be able to transact the business of your future business by phone. After the initial purchase the buying and selling paper work holds no more worries for the investor.

It's as simple as that, but remember it's all right to be a bear, the slow and steady type, and it's O.K. to be a bull, but never be a pig and expect too much.

This column will provide an advisory service to interested readers whose queries are accompanied by stamped, self-addressed envelopes. While we don't profess to be an oracle, we'll be quite happy to help steer you around a few of the pot holes we've learned about.

1953 BANK CLEARINGS

(Business men and western chambers of commerce who feel that activities in Alberta and British Columbia let Manitoba far in the background to get something of a jolt from the following figures.)

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| Vancouver | \$ 4,850,716,500.00 |
| Victoria | 416,713,626.00 |
| New Westminster.. | 220,402,470.00 |
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| Edmonton | 1,807,431,056.00 |
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| Medicine Hat | 77,417,975.00 |
| Regina | 1,438,215,352.00 |
| Saskatoon | 393,047,455.00 |
| Moose Jaw | 129,685,539.00 |
| Prince Albert | 96,605,884.00 |
| Brandon | 92,382,332.00 |
| Fort William | 158,254,749.00 |
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Today in SPORT

by LAC DAVE SWEENEY



IT IS with regret that this correspondent is putting the lid on the old typewriter here at Station Winnipeg, but the gentleman who will be taking the old job over is well versed in the different activities pertaining to sports. Besides being the president of the Station Curling Club, he is active in all phases of sport, so a good coverage is assured.

HOCKEY

Station Winnipeg dropped the Inter-Service finals to Navy in a good hockey game that had all the potentials of the old progame. The score of 9 to 6 was no criterion of the game itself, as both clubs played 60 minutes' heads-up hockey. It seems that the Navy team of the past have put the old whammy on other teams in their league. The Baker Memorial Hockey trophy, emblematic of Inter-Service hockey supremacy, seems to have found a permanent home in the Navy's Hall of Fame. But this always was a

good-next-year country, so who knows? Maybe next year!

CURLING

The local Curling Club held a wind-up meeting the other day, and it was decided to present the curling prizes at the club's banquet to be held on April 9th. Usual refreshments were served, with a buffet lunch provided for those on a solid diet. The President of the Club, Cpl. O'Byrne, gave his closing address and the state of the current season. Next year's plans were tentatively broached, and the way things are shaping up it could be a better season all around, if that is at all possible.

G/C R. B. Ingalls gave a brief address and distributed the prizes.

The top rink was skipped by LAC Dennie Viklund, with LAC Art Chalkley third, WO Lynn Jarrett second, LAC Jim Dyck lead.



Keith (Gus) Gusway.



G/C Ingalls presenting the winning rink with the station trophy.

Consolation winners were the LAC Fred Teeling rink.

To round off the evening, two appropriate films were shown and more food and refreshments were served. F/O McAlpine of the "One Tonners" fame, received the crying towel.

So ends a year of successful curling and as the sun slowly climbs up to its zenith we oil the old baseball glove and shine up the golf clubs. Any takers on the first nine holes???

(Continued on page 31)

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From Where We Stand

Where is the Editor of VOXAIR these days? We see him seldom, yet the VOXAIR seems to get out on time. Is there another office connected by the proposed tunnel that was originally planned for the Circulation Manager?

It was overheard the other day that the R.C. Church attendance was greatly increased on a recent Sunday. The reason: some personnel who started for Sunday service (Protestant) found their way to the R.C. Chapel, and once inside remained until the services were completed. After the service they re-checked to see if they had read correctly, and sure enough the sign was still on the Church reading "Protestant Chapel." For the benefit of VOXAIR readers, the Protestant Church is now located at the new site.

It was observed recently that two airwomen from RCAF Station Winnipeg were detailed to attend a local downtown theatre in uniform to stand in the lobby during the playing of the "Malta Story." Many favourable comments were passed on the appearance and cheerfulness of these girls in Airforce Blue during their appearance at the Theatre.

It has been reported that the Star of the Airforce Ranch Boys, Slim England, together with his partner, Nova Scotia's contribution to Winnipeg Hank Snow fans (Doug Bowser), has been cutting a mean rug with the Western cowboys with "Chew Tobacco Rag" and "I'm Moving On." Let us know when you reach television.

It is reported that the Station Band is negotiating for a Drum Major. This should prove interesting as well as daring—so, girls, let's start swinging that mace.

Why did a congenial WO1 from 1005TSD acquire a Rocket 88? Is there a story behind such a move, or is he expecting a transfer soon back to the Montreal area?



Chaplain's Page

ON FAITH

SOMETIMES WE ministers are criticized for jumping on the bandwagon of every new catchword that this age of ours evolves. Sometimes we minister are criticized for not being aware of the new, but sticking too closely to the old and the time-worn. Socialism, communism, democracy, McCarthyism, nuclear fission and fusion, brain-washing,—all these and a hundred more comprise the vocabulary of our time. If one cannot work dialectical materialism into a speech, even though he hasn't a clue about its meaning, he simply is not abreast of the times.

Today one of these "new" words has caught my attention—namely, brain-washing. Of course the papers have had considerable to say about brain-washing recently because of the court martial of a Marine Corps officer who confessed to the Communists after being brain-washed. At this trial there has been considerable expert opinion voiced by leading psychologists and psychiatrists concerning how long an individual could withstand this heinous treatment, brain-washing. Now, one of the experts' statements that caught my eye mentioned that no man could withstand treatment forever, but the man who had a strong religious faith could be expected to hold out considerably longer than others.

Now the interesting point in this testimony came when our expert stated that not many of us have a sufficient faith to give us the courage needed to withstand this brain-washing. We have courage on the battlefield because it springs from association with the group, but that is an altogether different matter from standing up all alone to endless hours of questioning. That calls for the courage which is born of a



F/L PARKHOUSE

faith which calls for cross-bearing. Our expert said these things, mark you. And he went on to say that our soft way of life on this side of the Atlantic was not conducive to such faith and such cross-bearing as would enable many to stand up against this new facet of modern war.

All of us have faith in things—in cars and homes, in the ability of our technical skills to produce more and more things to keep us happy.

Strange, though, that things only last for a day. Last year's car is as old as last decade's. Faith in things to give life and happiness is a costly and frustrating business. There is a faith, however, in One who is real, who is so interested in the life and happiness of each of us that He came to earth and died on a cross that we might have life. Socialism, communism, democracy, McCarthyism, nuclear fission and fusion, brain-washing—yes, and dialectical materialism—all of these fade into their proper perspective as transitory bubbles in the ocean of eternal love when there is faith in God.

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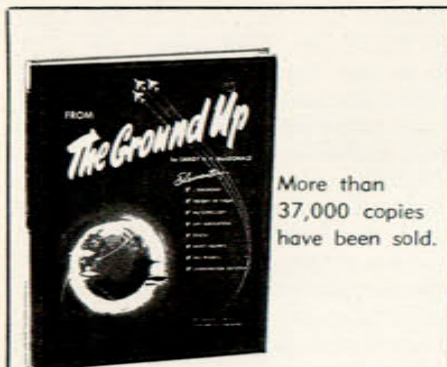
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(Recent events have given significant meaning to some ancient writings. We thought that the following lines from ISAIAH made rather an interesting caption for the above H-Bomb photo taken at a distance of fifty miles.)

And He shall judge among the nations and shall rebuke many people . . . And they shall go into the holes of the rocks, and into the caves of the earth, for fear of the Lord . . . when He ariseth to shake terribly the earth.



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CHOU EN-LAI

(Continued from page 5)

Red bandit. Though a communist trained in Moscow, he is not a doctrinaire Marxist. He supports "Maoism," which is Marxism with a Chinese deviation. Maoism favors a "democratic dictatorship," international solidarity with Russia, and a practical adaptation of Marxism to China. Though the ultimate objective of both Mao and Chou is communism, they would retain, for the present, private ownership of land and some private capitalism. In carrying out these policies Chou has proved himself shrewd, resourceful, honest, efficient and ruthless.

In his foreign policy Chou is determined not only to drive the foreign devils (not counting Russians!) out of China but to help liberate all neighboring peoples from what he calls imperialist or reactionary rulers. Red China, under his direction, would like to get control of the rice bowl of the world in South-East Asia and the tin, rubber and other riches of that area. She aspires to be the dominant nation in Asia and to be recognized as one of the great powers. Chou En-lai relies

on political, military and economic alliance with Soviet Russia to achieve China's aims and to spread communism throughout Asia. He can expect to encounter the resolute opposition of the United States to expansion through force, terror or internal subversion.

Such is the man with whom backed by the unyielding Molotov the Western nations hope to negotiate a settlement of the Korean and Indo-Chinese problems at Geneva.

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By LAW ANN ZAWADIUK

THE OFFICIAL first day of Spring was the 21st of March—but don't believe it. Here in Winnipeg it's been (and still it) mighty cold. B-r-r-r! At this rate, there will be few women brave enough to don a new Easter bonnet. (Pardon me while I pull up my collar.) By the way, Jackie, how about changing the notice on the bulletin board to read "hockey" rather than "softball"?

And now, to discuss my favorite subject—namely, food! What's happened to the food at the mess lately? Did the messing staff fear that the airwomen would put on too many pounds? Anyone care for a ham-burger—ugh! or maybe some lamb chops—ugh! ugh!! Perhaps we could lose a few pounds before we buy those new spring outfits (if we can afford them).

Welcome to Winnipeg — F/O Elaine Petterson. Miss Petterson came to us from Station Saskatoon and has replaced F/O J. Carter. On Wednesday, March 31st, a meeting was held in the Airwomen's Lounge giving F/O Petterson an opportunity to get acquainted with the airwomen. Take off your hat and stay awhile, M'am—about two years.

Aside from the informal chatter, we discussed possibilities of summer sports. From the variety suggested (softball, swimming, cycling, horseback riding, and tennis) every girl should be quite active this summer.

Seems like the airwomen are minus nickels just prior to paydays. We are now hoping to have a local telephone installed. That was one item discussed during the meeting of which everyone was in favor. Aye, aye.

It appears that none of the airwomen profited during the last promotions. Still the same faces with the same familiar props. (Acting??) But don't despair, girls, there's hope. And from the airwomen to all the males who were lucky—congrats!!

We hit the jackpot again, or will hit it in May. Two more of our airwomen will be tying the knot. On the first warm day—yes, the very first day in May, our LAW May Dawson will be saying those famous last words, "I do." Her lucky man is Johnny "Porky" Lansburg, an old-timer at Station Winnipeg. (Good luck, children — Auntie Anne.)

On the 21st of May, LAW Dot Gamble, who is a recent arrival at Winnipeg, will be getting married. (Bring your young man to Winnipeg some time, Dot; we'd like to meet him.)

To both these ladies, congratulations!

We may eventually have the required establishment of airwomen at Station Winnipeg. Last fall preparations commenced for an additional 70 girls. It is now six months later, but we're finally getting them

(it seems). To all the new arrivals—"Hi" and hope you like Winnipeg.

Cpl. Claire Baker has left us and gone back to her home station, Trenton. Don't wait till you're sent here on T.D. again, Claire. Come and visit us during your next leave and bring some of that delicious homemade jam. OK?

The weatherman forecasts light rain for tomorrow—there's hope of Spring yet!

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UNITED STATES

WASHINGTON—Following the six-day visit of French Chief of Staff Gen. Paul Ely and President Eisenhower's statement last month that "Southeast Asia's liberty is vital to the free world," plans moved rapidly ahead for supplying the French Union forces fighting in Indo-China with additional United States arms, including 25 more B-26 bombers. While the President spoke mainly about Indo-China, he also made specific mention of the friendly peoples of Burma, Thailand, Malaya and the Philippines.

The French chief of staff had emphasized that he was not "asking for more help," but he was laying the facts of the Indo-China struggle on the table, including the need for more bombers immediately and for direct United States air and naval intervention if the Chinese Communist air force enters the battle.

President Eisenhower later dispatched an unusual message to President Rene Coty of France and to Bao Dai, chief of state of Viet Nam, commending the "gallantry and stamina of the commander and the soldiers who are defending Dienbienphu."

WASHINGTON — The Federal Civil Defence Administration has announced the first continental test, to be held on June 14 and 15. Not only all the states and territories of this country but the ten Canadian provinces will take part in the test. Planning for this most elaborate tryout of the civil defence system has been in progress for many months.

WASHINGTON — President Eisenhower last month nominated Lieut.-Gen. Laurence C. Craigie to be commander of Allied air forces in Southern Europe. The President also sent to the Senate the nomination of Lieut.-Gen. David M. Schlatter—who is retiring from the job to which General Craigie was named—to be commandant of the Armed Forces Staff College.

NEW YORK—Panayotis Kanollopoulos, Greek defence minister, said here recently that his country has been assured of additional military aid by the United States. After talks with President Eisenhower and Secretary of Defence Charles E. Wilson, the defence

minister said that among items promised were F-86 interceptor planes for the reorganized Greek air force. His country, he added, is also to receive more of the most modern types of artillery and other of the latest American weapons.

FAR EAST

HANOI (Special to VOXAIR)—This week more than ever the rebel Viet Minh besiegers of Dienbienphu and the weary French forces appeared to have plodded toward a final terrible showdown in the struggle for the fortress.

The American Secretary of State was back from Europe and a session of



John Foster Dulles.



Brig.-General Christian de Castries.

fencing with diplomats who had taken some time off from playing dilly-dally with EDC, and were busy working out pre-Geneva possibilities in what had all the earmarks of suggested concessions to Red China to ease the battle-front pressure. Mr. Dulles, who has ideas of his own on who to make deals with, was taking a very serious view of the Indo-China situation, and last week two U.S. carriers moved to within striking distance of the battle area.



Fairchild field service representative James Ritchie, at right, and Squadron Leader L. S. Grewal, center, discuss C-119 flight procedures with Flight Officer C. S. Roje before the Flying Boxcar took off from Hagerstown, Md. Squadron Leader L. S. Grewal piloted the first C-119 that left the Fairchild plant for India.



As the week ended the rebel forces had seized control of the air strip and the French government announced the promotion to Brigadier-General of Christian de Castries, gallant commander of the encircled French troops.

OVERSEAS

PARIS—A British government agreement to commit British armed forces to serve within the framework of the proposed European army was disclosed recently. The London decision was sent formally last week to the six nations of the European Defence Community set-up, under which the European army would operate. It went far beyond any previously known British links, actual or contemplated, with the EDC project.

EASTERN CANADA

MONTREAL—"146 JET AIRCRAFT MONTH RECORD FOR CANADAIR RE"—A record 146 jet aircraft were accepted by the RCAF from Canadaair during the month of March—enough to almost re-equip all Canadian squadrons flying with NATO forces in England and Europe, the company has announced. The March figure broke down to 64 F-86 Sabre jets, 3 T-33 jet trainers and 9 overhauls. The majority of the T-33's are going to RCAF stations on the Prairies.

GOOSE BAY—Three members of the Air Force and one Transport Department employee were rescued less than 24 hours after their Otter plane was damaged in landing on a small lake in Central Labrador last month. A Dakota put down on the lake and flew the men out.

TORONTO—At an official presentation at the RCAF Station in North Bay, C. O. Dalton, president of Carling Breweries Limited turned over documents giving title to 24,000 bottles of Red Cap for use of RCAF personnel in Europe under the NATO agreement. The shipment given on behalf of the RCAF Association and the RCAF North Bay was accepted by Group Captain F. R. Sharpe and Air Vice-Marshal A. L. James, CBE, CD.

NORTH BAY — Commanding Officer Group Captain F. R. Sharpe will be transferred to Ottawa in June, RCAF Headquarters at Ottawa has announced. Group Capt. Sharpe has been in command of the air base here for the past 18 months. His new position will be that of director of organization and establishments at RCAF headquarters at Ottawa. His successor is expected to be announced within the next few days.

OTTAWA

OTTAWA—Home from a flight over the North Pole and much of the Canadian Arctic, Hon. B. Claxton, Defence Minister, told a press conference that the radar network planned by the United States and Canada will be completed in the north this year. In addition, the McGill fence—a cheaper system of protection—was being constructed as a supplementary measure. Any further defence moves in the Far North would be a matter for further consideration between Canada and the United States. More must be done, for despite the fact that both countries have been working quietly to build up North American defences against a possible enemy bomber attack, they well know it is impossible to devise a fool-proof air defence system. Last week came a further joint statement from Canada and the U.S. that North America's radar defences are being extended out to sea.

OTTAWA—Air Force students from five North Atlantic Treaty Organization countries visited Ottawa on the fifth anniversary of NATO. The group from London, Ont., were accompanied by Sqdn. Ldr. C. F. Wattie, commanding officer of the officers' training school there.

OTTAWA—Her Majesty the Queen has approved the institution of the "Queen's Medal for Champion Shots of the Air Forces," to encourage small arms shooting skill in the Air Forces of the Commonwealth.

To be eligible for the medal, Canadian competitors must be active members of the RCAF regular force or active members of the auxiliary or primary reserve.

In Canada the medal will be competed for under small arms championship conditions during the annual prize meeting of the Dominion of Canada Rifle Association and awarded to the winner of a competition conducted at these meetings.

The first competition for this medal will be held at the annual prize meeting of the Dominion of Canada Rifle Association at Connaught Rifle Ranges, Ottawa, on Wednesday, August 11, 1954.

OTTAWA—Recently promoted to Air Commodore rank are Group Capt. Charles H. Greenway, 39, of Lloydminster, Sask., senior personnel officer at Training Command Headquarters, Trenton, and Group Capt. R. A. Cameron, 43, of Oak Lake, Man., director of organization and establishment at RCAF headquarters here.

OTTAWA—After 28 years' service with the RCAF, F/L Larry J. Ryan, adjutant of the Rockcliffe air station, is retiring from active duty this month.

He will be replaced by F/L Owen M. Hall, formerly of Winnipeg, adjutant of the air force administration unit at Ottawa since 1950.

OTTAWA—W/C Paul Morrow Hale, AFC, has been transferred to RCAF headquarters here. W/C Hale has served as chief training officer at Macdonald, Man., since June 27, 1951, and has been officer commanding No. 1 Pilot Weapons School at Macdonald.

OTTAWA—"FREE SERVICEMEN OF TAX ON GOODS"—Canadian servicemen, posted abroad for a year or more, will be allowed to bring back as many goods as they wish without paying duty. Finance Minister Abbott lifted the \$1,000 ceiling on duty-free imports for servicemen, granting them the same privileges extended for many years to other employees of the Canadian government serving abroad.

OTTAWA—Wing Commander Harold M. Smith, DFC, 39, of New Westminster, B.C., officer commanding 408 Photographic squadron at Rockcliffe, Ont., has been transferred to Air Division Headquarters, Metz, France, it was announced last week.

W/C Smith will be replaced by W/C J. G. Showler, AFC, 41, of Winnipeg, who leaves the post of Chief Administrative Officer at Goose Bay, Labrador.

W/C Smith, who will be Senior Personnel Officer with the Air Division overseas, was born at Edmonds, B.C., and educated at New Westminster.

Appointed officer commanding 408 squadron in October, 1951, he has supervised the vast aerial mapping pro-



W/C J. G. Showler.

gramme in the Far North since that time.

W/C Showler joined the RCAF in April, 1940, winning his wings at Camp Borden in October of that year. He was the RCAF commander of Exercise "Muskox" during the winter of 1945-6, the first large-scale Army-RCAF northern exercise held after the war.

OTTAWA—A recent Globe and Mail report "on the best authority" of the transfer of "large numbers of Canadian-built Sabre jets already in Europe" to the re-born German Air Force has been thoroughly refuted by Defence Minister Claxton, who last

week said in the Commons he believes the agreement among the occupying powers for limited rearmament of Germany provides for a "limited air force for tactical purposes." Earlier, A. M. Nicholson (L-Mackenzie) asked Mr. Claxton if he had seen the story. Mr. Claxton said there is "nothing whatever" in the report.

AIR CADET

LONDON, Ont.—"AIR CADET TEST SET AT CHATHAM"—Seven Air Cadet Squadrons from Western Ontario will compete Friday, May 28, in Chatham, in the annual Royal Canadian Air Cadets' Western Ontario Region Inter-Squad Drill Contest. Representing London will be 27 boys from No. 27 City of London Squadron. Other squadrons to compete are Goderich, Chatham, Sarnia, Kitchener and two from Windsor.

MONTREAL — Canadair Ltd. will sponsor two new squadrons of the Air Cadet League of Canada and company officials said last week recruiting of boys, 14 to 18 inclusive, had begun April 10. One new squadron, the Canadair unit, will recruit sons of Canadair employees. The other, the Canadair-St. Laurent squadron, will recruit boys in the St. Laurent District.

MONTREAL—An Air Cadet squadron has been formed in suburban Chateauguay, it has been announced. Wing Cmdr. Noel Walsh, former regular RCAF officer with long experience, will head the civilian committee organized to support the squadron.

YORKTON—F/O A. Simmons, liaison officer for the Yorkton squadron, from the RCAF station at Moose Jaw, brought an aircraft to Yorkton recently to give first-year air cadets of the collegiate squadron No. 17 familiarization flights. About 25 cadets were taken on the half-hour flights over the city in an Expeditor aircraft.

EDMONTON—Variety is the keynote in the musical programs of novelty, popular and classical selections by the internationally famous 40-piece Royal Canadian Air Force band of Tactical Air Command in their tour of southern Alberta centres just completed. Sponsored by local air cadets squadrons, the band appeared through the permission of Air Commodore S. W. Coleman, air officer commanding Tactical Air Command. The range of orchestration scheduled by the conductor, F/O Leo Corcoran, represented a strong effort to give audiences the music they wanted to hear. The band visited the following centres: Calgary, Lethbridge, Claresholm, Raymond, High River, Taber, Foremost, Medicine Hat, Suffield and Barhead.

CLIVE—The Clive Air Cadet Squadron and its officers held a "parents' night" in the Clive school last month, with an interesting program presented. Also present were two RCAF officers from Penhold, F/O W. J. Kenton and F/O P. Mahoney. The cadets and cadettes displayed their new uniforms, and after being put through their drill routine by F/O John Morton were commended by F/O Kenton.

WESTERN CANADA

EDMONTON — Wing Cmdr. John Watts of Ottawa has arrived at Cold Lake, 160 miles northwest of Edmonton, to take over command of the new

weapons range there, it was announced last week. Wing Cmdr. Watts was accompanied by an eight-man advance party and will be in charge of preliminary organization, setting up quarters for personnel and organizing messing facilities.

CALGARY—No. 25 Air Materiel Base in Southwest Calgary will henceforth be known as RCAF "Station Lincoln Park." Just what the full significance of the change, which became effective March 1, might be is not known. However, the name change could be indicative of a future shift of air force activities to Namao.

CAMBRIDGE BAY — According to New York Herald Tribune, military reporter Jim Senter, who recently returned from attending the RCAF survival training school at Cambridge Bay, NWT, 8,000 Canadian citizens, a people who could serve their country well on Canada's last frontier, are passing virtually unnoticed and with little gainful employment in a civilization that is spreading ever northward. While this reporter does not claim to be an expert on the Eskimo, there are many white men, veterans of the Arctic, who agree with him and feel that much greater use could be made by Canada of these people.

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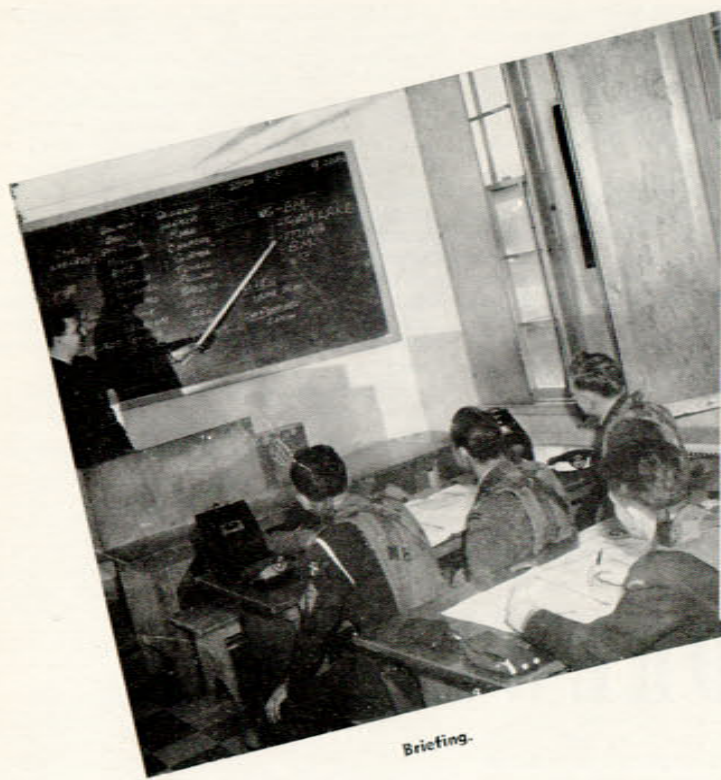
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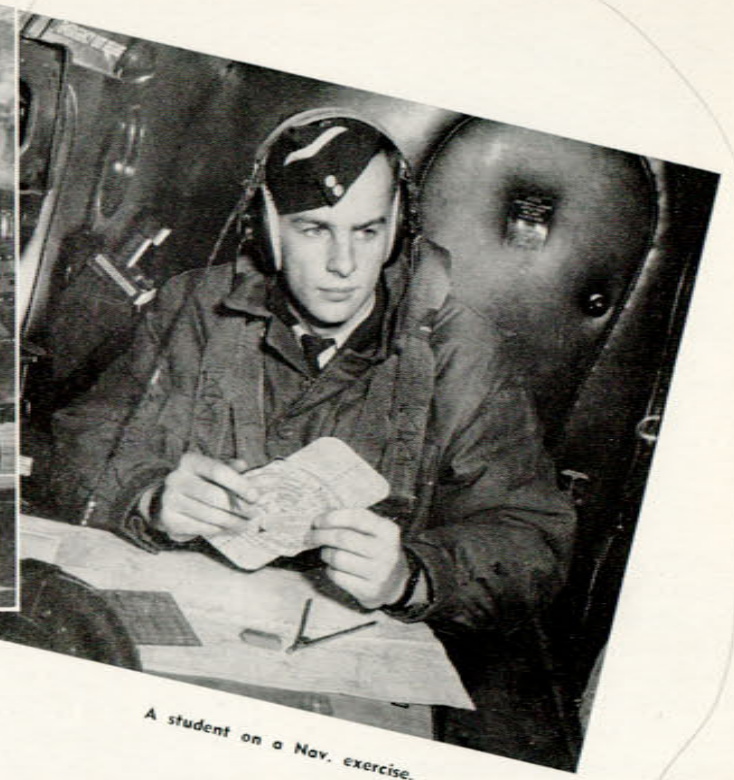
Briefing.



Cadets discussing projected Nav Flight.



Boarding the aircraft.

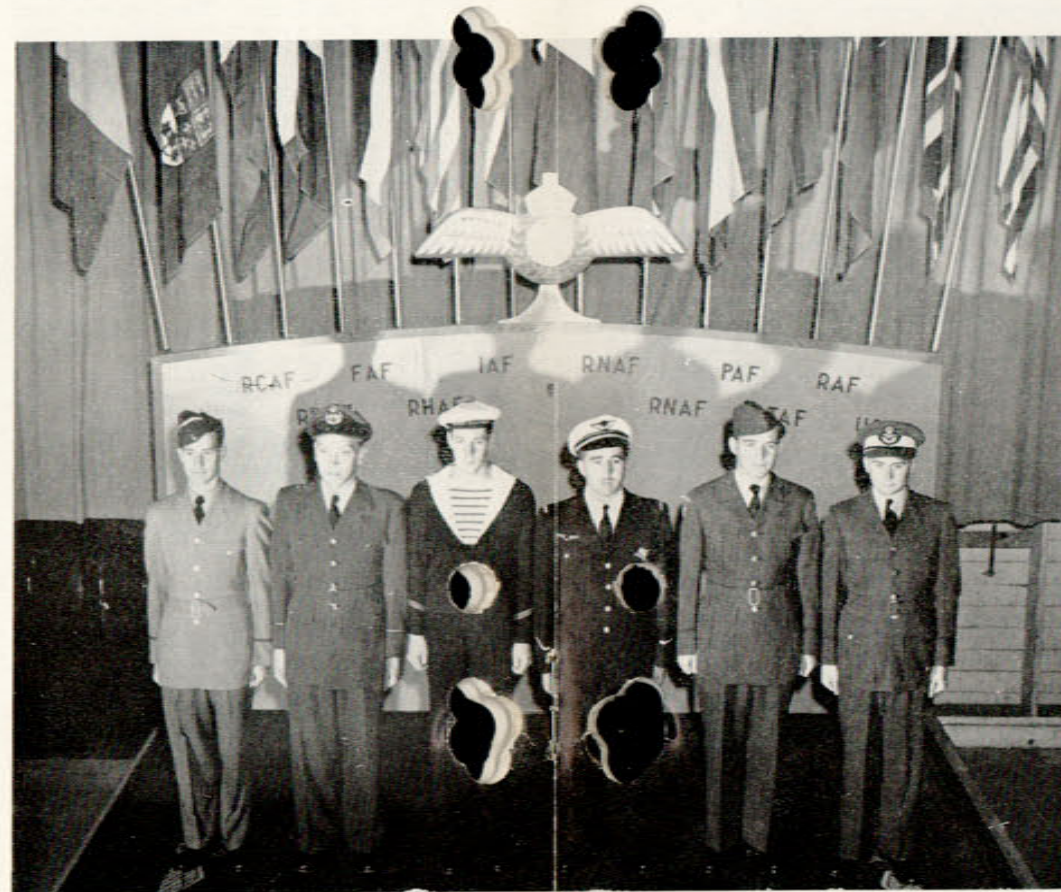


A student on a Nav. exercise.

NATO NAVIGATION TRAINING AT RCAF STATION WINNIPEG



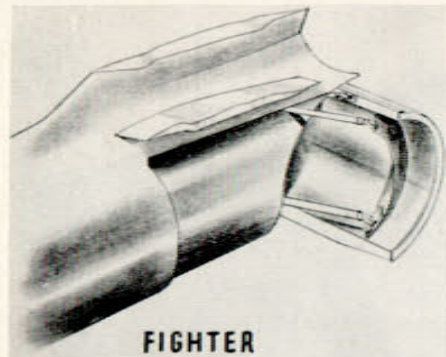
First NATO Cadets arrive at Union Station.



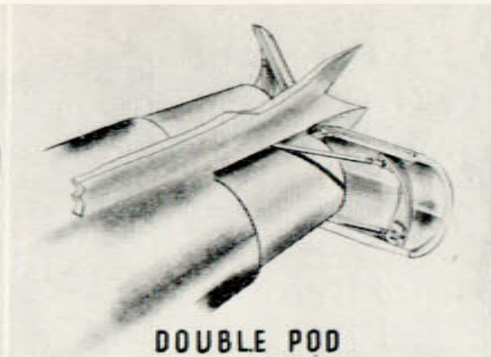
—Photo by Ken Gregg.
This photo taken for Winnipeg's first NATO Graduation symbolizes the truly international concept of NATO.



Graduation parade in Drill Hall.



FIGHTER



DOUBLE POD



BURIED IN WING

Possible reverser installations for three types of jet engine installations are shown in the drawings above. The "Clamshell W" jet thrust reverser illustrated were the most promising type studied by Boeing engineers in a three-year search for a means of using jet thrust to decelerate airplanes after landing.

JET THRUST REVERSERS

DEVELOPMENT by Boeing Airplane Company of practical designs for jet engine "reverse thrust" devices to enable jet transports, bombers and fighters to operate from the majority of existing airports, was revealed last week.

The Boeing-developed devices, which have been under study for more than three years, are designed to divert the tremendous power of jet engines so that it is easily, quickly and safely made available for braking purposes, once the airplane's wheels have touched down on a runway.

The Boeing thrust-reversers will make possible jet airplane landings at major airports under all runway conditions. Boeing engineers expect the reverser devices to have reliability as good or better than that now experienced with the widely-used reverse thrust propellers.

Reverse thrust by means of propellers has been one of the few advantages enjoyed by the propeller-driven airplane over the jet air-

plane which offers much better performance in almost all other respects. But Boeing engineers believe this advantage will be canceled out by the jet engine thrust-reversers, and thrust-reversers will become as necessary and as important as part of airplane equipment in the future as reversible propellers have been in the past.

The new devices, and their future capabilities, were described publicly for the first time on April 15th in a technical paper given by Joseph F. Sutter, Boeing aerodynamics engineer, before a group of the nation's top aviation experts at the national aeronautics meeting of the Society of Automotive Engineers, in New York.

At the New York meeting, Sutter said Boeing has been studying practical means of applying reverse thrust devices to jet engines since 1951. Among the designs investigated were a half-spherical "W," a longitudinal "V gutter," a conical "V umbrella," a half-spherical "V,"

and the "clamshell W" which, it was found, best fitted the bill.

When extended, the "clamshell" thrust reverser deflects forward the flow of the fast-moving gases from the jet engine's tailpipe, and thus decelerates the airplane. About 45 per cent reversal of jet thrust is possible with "jet brakes" that could reasonably fit into the space available near the engine tailpipe.

The small scale test installations investigated by Boeing demonstrated that a jet transport, making use of its normal wheel brakes, plus a "clamshell" jet thrust reverser on each of its engines, would be capable of stopping in as short a distance on smooth ice as it could on a dry runway with brakes alone.

"The 'clamshell' jet thrust reverser appears to be the best of the many possible types of reversers studied, in view of design objectives," Sutter said. "It is inherently safe and reliable, does not affect engine economy when not in operation, and is highly satisfactory from the standpoints of mechanical simplicity, installed weight and airplane stowage."

An extendable device, the "clamshell" is stowed around the exterior



—Boeing Airplane Company Photo

A shadowgraph of a Boeing Airplane Company thrust-reverser test model during an actual test shows the way in which a "Clamshell W" thrust-reverser deflects jet engine blast. Purpose of turning jet blast is to aid in braking jet-engined airplanes after landing. The jet nozzle in this photograph is at the bottom of the picture, the jet reverser is at the top. Boeing Airplane Company has been engaged in jet thrust-reverser research since 1951. Results of the research were described April 15 in a paper presented at the national aeronautics meeting of the Society of Automotive Engineers in New York.

of the jet engine tailpipe when not in use and is extended into the jet flow only after landing. It could be fitted to jet engines buried in the wing, as well as podded jet engines and tailpipes of many jet fighters.

When the "clamshell" reverser had proved its worth to Boeing engineers in model form, it was developed into a detailed airplane installation study. This study demonstrated that the weight of a reverser system would not be great. Sutter said the calculated weight probably can be reduced with development and operating experience.

"Jet reverser undoubtedly will become the 'pilot's friend' in the future," Sutter concluded, "just as the reversible propeller is today."

* * *

OTTAWA—A spokesman for the National Aeronautical Establishment said recently that it was intended to test after burners in what is believed to be the first such development in Canada. A Gloster Meteor jet fighter, gradually assembled during the past few months, will be given flight testing

by pilots of the RCAF Central Experimental and Proving Establishment at Uplands Airport. The aircraft was loaned to Canada by the British Ministry of Supply.

COVER STORY



RCAF aircraft are often called on to carry out important mercy missions in Canada's far northern outposts. This ski-equipped Dakota answered an urgent message for assistance to fly a dangerously ill Eskimo to hospital. Crew members are busy loading the sick man aboard the plane while Eskimos from the village of Hebron, Labrador, look on with interest.

—National Defence Photo

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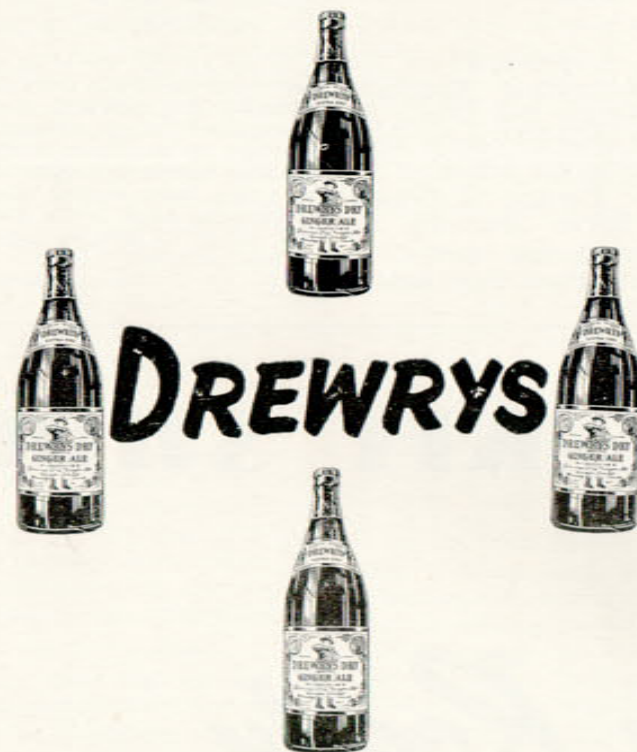
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SUPERSONICALLY SPEAKING

(Continued from page 4)

as the Mach number increased and the pilot would apply full nose-up trim in an effort to recover. When the aircraft reached lower altitudes where the Mach number decreased, the aircraft returned to normal flight characteristics with such suddenness that the previous application of full nose-up trim usually resulted in structural failure of the tail because the pilot was unable to prevent a violent round-out from the dive.

In the case of the Thunderbolt, several incidents occurred in which the aircraft failed to recover from the dive and continued straight into the ground.

Thus aircraft performance had advanced to the point where it was no longer possible to execute a Terminal Velocity dive with any assurance of a successful recovery.

About 1943 or 1944 a bulletin was distributed to the pilots of fighter squadrons giving them a simplified explanation of the effects of compressibility at high diving speeds and this was their first introduction to a name that has become a household word to pilots and aeronautical engineers—Dr. Mach.

Developments of the gas turbine engine again changed the problems. Designers had more power available than the airframe and controls of those days were designed to cope with. It was possible to attain maximum design diving speed in level flight. This really brought the high Mach number problems to the fore; but characteristically, engineering advances and development test flying have achieved solutions for them. It is interesting to note that the latest and most highly developed aircraft can once again do Terminal Velocity dives.

We will pass over the physiological problems of reduced atmospheric pressure and lack of oxygen as they are reasonably straightforward, and consider the basic problems confronting a pilot who is charged with the responsibility of investigating the behaviour of an aircraft in the transonic speed range.

Experience has indicated that there are two major problems associated with the flight characteristics of the aircraft: First—loss of control resulting from variation of centre of pressure and hinge movement resulting in large and unpre-

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dictable trim changes combined with simultaneous and sometimes serious ineffectiveness of controls and trim tabs. And second—a general airframe buffeting resulting from breakaway of the airflow.

These characteristics can manifest themselves considerably below Mach 1 because the airflow will inevitably be accelerated over any protuberances of the aircraft profile and in some local areas will exceed Mach 1 with the resultant breakaway occurring at aircraft speeds well below the speed of sound. However, this is not the limiting factor

in most aircraft and, as a matter of fact, it often is a transient condition which may manifest itself at a Mach number of perhaps .875 and reach a peak at .925 and disappear completely again at .975.

The greatest hazard here is the possibility of the particular cycle of the buffet exciting a sympathetic vibration in a major component of the airframe or imposing such high cyclic stresses in some portion of the control circuit as to result in failure of a link in the chain of control. If the high Mach number is combined with high dynamic forces,

as would be the case if flying very fast at low altitude, the result of any such failure would almost certainly be catastrophic.

The forces imposed by a fluttering trim tab and control surface at high speed can cause almost instantaneous and complete disintegration of the aircraft.

Consequently, it is better from the standpoint of buffet to investigate high Mach numbers at high altitude. The possibility of breaking the aircraft will be greatly reduced and furthermore there may be some opportunity for the pilot to effect his escape from the aircraft if it does suffer structural failure because the Indicated Air Speed is so much lower for a corresponding Mach number.

As previously mentioned, the other major characteristic associated with high Mach number is partial or complete loss of control and this is usually the most serious problem and the one which finally limits the aircraft speed.

This limit may be reached because of inability to control the aircraft in either pitch or roll or both. Generally speaking, compressibility effects do not create any serious problem in directional control. This is probably because the aircraft is virtually symmetrical in plan view and furthermore the control surfaces are not called upon to support offset directional loads as is

(Continued on page 24)

MOCK BUSTERS . . . ! In the realm of the supersonic, a new symbol for speed—the Mach Number (pronounced **MOCK**)—has replaced mph and knots to a very large extent in the language of aeronautics.

Not that mph or knots have become antiquated. They are still vital to the jet pilot and the engineer. But in the supersonic where an aircraft is subjected to strange stresses and forces, a more direct and more constant relationship to the speed of sound is essential.

The test pilot must have an instrument which immediately gives him his speed in relation to the speed of sound, which of course varies with height. At sea level the speed of sound is approximately 760 mph and at 40,000 feet, about 660 mph.

The Machmeter fills this need. A reading of Mach 1.5, for example, means 150% of the speed of sound, no matter what the altitude. With an ordinary air speed indicator, certain factors have to be applied to allow for height and altitude to get the same data. The test pilot on a supersonic mission is too busy to make these adjustments.

The new symbol of speed is an indirect tribute to Professor Ernst Mach, a German scientist who experimented with the speed of shells in flight long before the Wright Brothers took to the air.

Using high-speed cameras, Prof. Mach found that shock waves produced by a high velocity shell flowed out the back from the tip of the missile in the shape of a cone. This was first termed, the "Mach angle" and later, "Mach Number."

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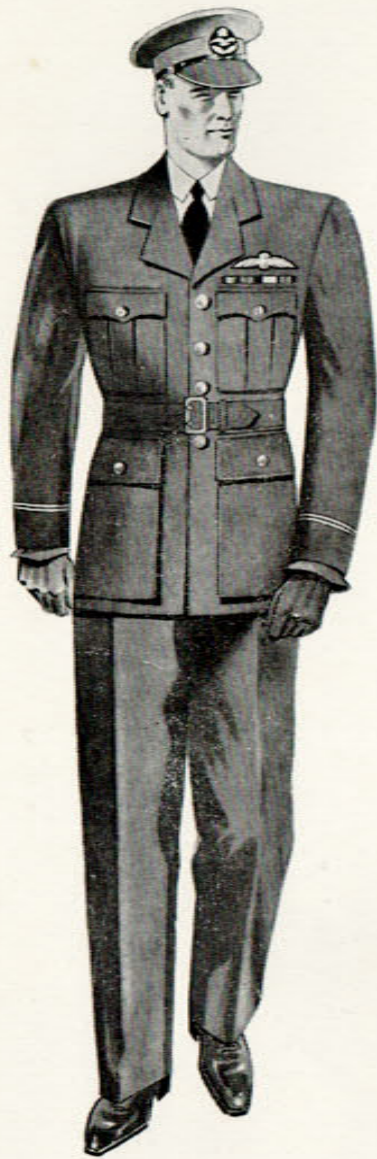
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Pictured at right is **JACK WELLS**, well known sports announcer in a wool sports coats and slacks from the Bay.

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SUPERSONICALLY SPEAKING

(Continued from page 21)

the case of the wing and tail and attached surfaces. However, some erratic yawing may occur as a result of oscillations in the rolling plane.

This inability to maintain level flight laterally is a characteristic of some aircraft and, unlike the manifestations in the pitching plane, it is not a consistent case. Characteristics vary considerably between different aircraft of the same make and model and even between different flights on the same aircraft. Sometimes one wing will drop and sometimes the other.

One of the most startling examples of this is the experience with the Douglas Skyrocket. Several flights had been made up to high Mach numbers with no serious control problem but it was decided to alter the push over technique slightly. The rate of push-over to give a "G" value of 0.6 to 0.8 was increased to give .25 in an effort to accelerate more quickly. When the load factor reached .25 violent oscillations commenced in the rolling plane with the wings ripping as much as 75 degrees either way at a rate of almost 90 degrees per second.

Fortunately, this degree of misbehaviour is not an inevitable characteristic of all aircraft at high Mach number.

As with buffeting, some airplanes will experience wing dropping only

while passing through a narrow band in the Mach number scale.

An interesting feature of both the buffet and wing dropping is the variation in severity resulting from a variation in technique when increasing speed.

Unfortunately, while it is possible to reach the limiting placard speed of many jet aircraft in level flight the curve of the drag rise becomes so steep at some critical Mach number that, in order to investigate the problem further, the assistance of Mr. Isaac Newton is required and the aircraft must be dived to add a component of the weight to increase the resultant effective value of thrust.

The method of entering the dive can have a marked effect on the buffet and rolling characteristics for two reasons. First, the rate of push-over and angle of dive will alter the duration of the flight through any intermediate range of speed in which undesirable characteristics may occur. Secondly, the angle of attack and the lift coefficient will be altered which may or may not effect the improvement in the aircraft reaction in the transonic speed range.

As mentioned, in the case of Douglas Skyrocket, a small variation in the rate of push-over made the aircraft uncontrollable.

One method of entering the dive which is quite common is to use a push-over rate to give zero "G." Another is roll over inverted and

then roll upright again at the desired angle of dive or to roll the aircraft onto its back and live inverted past the vertical.

Each procedure will probably result in different aircraft characteristics but the best one can only be determined by actual tests.

However, none of these rapid entry methods can be used safely during the exploratory stages of the investigation.

One of the basic laws of survival in such a program is to probe higher speeds in very small increments.

The reasons for increasing speed by a small amount on each run are threefold: First to check the aircraft's reaction in pitch, roll and yaw; secondly to assess the severity of the buffet; and finally to ensure that it is possible to recover at will from any point in the Mach number range.

The latter problem is the largest single source of concern and with good reason—several in fact.

The movement of the centre of pressure, the variations of hinge movement, the remarkable loss of effectiveness of tabs and controls and finally the very high control forces combine to cause the now familiar nose down pitch known as "tuck under" and some aircraft reach a point from which recovery at will is impossible.

The introduction of power con-

trols has made it possible for the pilot to apply any desired degree of up elevator but even full up elevation may be insufficient to effect recovery from the steepening dive due to the reduction of control effectiveness. Fortunately, as the aircraft descends into warmer air at a lower altitude, its Mach number finally begins to decrease again and the controls resume their normal functions sometimes suddenly and recovery may be possible.

Another reason for increasing

speed in small increments is because of the buffet characteristics. During the push-over, while the speed is increasing, the buffet may be relatively mild but may suddenly increase sharply with a very small additional increase in Mach number and, once started, the speed may have to be reduced considerably before the buffet will stop. The buffet is considerably aggravated too by the very attempt to recover. The addition of the small increase

(Continued on page 32)

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EDITORIAL

(Continued from page 2)

the Soviet Foreign Minister. Such sudden proposals have the disadvantage that they ignore certain necessary preliminaries.

* * *

There has never been anything mysterious about the genesis of NATO. The motivation of the democratic peoples was explained with great clarity by Mr. Spaak, then Premier of Belgium, in the United Nations on September 28, 1948; a significant date mid-way between the signing of the Pact of Brussels and the wider Atlantic treaty. As the representative of a small nation, Mr. Spaak addressed these words to Mr. Vyshinsky:

"Do you know what is the basis of our policy? It is fear of you, fear of your Government, fear of your policy! Do you know why we are afraid? We are afraid because you often talk of imperialism. What is imperialism? It is a people, generally a Great Power, that makes conquests and increases its influence throughout the world. What is the

historical reality of these last years? There is but one Great Power that emerged from the war having conquered other territories, and that power is the U.S.S.R. It was during and because of the war that you annexed the Baltic countries: it was during and because of the war that you took a slice of Finland: it was during and because of the war that you took part of Poland. It is thanks to your audacious and supple policy that you have become all-powerful in Warsaw, Prague, Belgrade, Bucharest, Sofia; it is thanks to your policy that you occupy Vienna and Berlin and that you are not disposed to withdraw; it is thanks to your policy that you are reasserting your rights to share in the control of the Ruhr. And having seen your empire, which extends from the Far East to the Baltic and from the Black Sea to the Mediterranean, we now feel you also on the banks of the Rhine—and you ask us why we are anxious!"

* * *

If Mr. Molotov wishes therefore to be regarded as a sincere candidate for admission to NATO, he

should address himself to the removal of the causes which brought NATO into being as a defence against Soviet aggression. He might begin by undoing the Prague coup which was the immediate incentive for the rallying of the Western nations in a tight security system. (Mr. Molotov is ingenious and should have no difficulty in finding means to liquidate the present Prague gauleiters.) The next step should be the withdrawal of the Red Army behind the Russian frontiers with appropriate supplementary international action to remove the existing terror regimes in Eastern Europe and to ensure free elections in accordance with the long dishonored peace treaties. Other steps, such as the suppression of the Cominform and a new attitude of co-operation in such matters as the international control of fissionable materials will readily suggest themselves to his perceptive mind.

With Europe thus liberated and the fear of Soviet imperialism banished from the public mind, Mr. Molotov's interesting proposals will merit a sympathetic hearing in Western capitals.

GRADUATING CLASS 5309 AI



Back row, left to right: 2/Lt. Van Frachen, F/O Tilbury, F/C Meyer, F/C Kjeldson, 2/Lt. Wyckaert, 1/Lt. Wijnen.
Back row, left to right: F/C Moesgaard, F/C Emmerson, F/L Danard, F/C Hansen, F/C Pallaver.



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COURSE 5309 AI

F/L Doug "Dooly" Danard arrived from Summerside to join the ranks of AI instructors for his first Course 5309. As our Course Director he hopes to have one student for graduation. His many and varied pastimes include curling, from which he managed to obtain dubious honors at Kenora — well, at least it was a trial run for the new Nash.

F/C Emmerson (RCAF) Another one of 09-Tigers ex (bush) pilots. Where does he come from? North Saskatchewan as his papers say — in Eskimo country probably. His appearance — quite handsome — with always a big smile on his face, always looks smart, and willing to co-operate. If you need your dress cleaned — go to see him — his hairbrush is quite adequate to do the job. He has his own way of interception technique, circling the same spot hoping that the target will come to him, but sometimes the aircraft runs out of fuel and the pilot has to land and say "I hope you will be luckier the next time."

His hobby: Reading skin books during classes.

His big trouble: The weaker sex.
Ambition: To fly with the hand control in the right hand and a beer in the left.

Favourite Expression: What's the name of this game?

F/C Elmar "Moe" Moesgaard. One of Denmark's recent exports (or is it deports?) his Air Force career started at the controls of a Chipmunk but the increasing accident rate soon found him studying Astro at ANS. He had a great desire to take the LR course but his government decided too many lives would be jeopardized — there are only two people in an AWF and so he went to the AI course. Moe should go far in the Air Force (far North).

Ambition: To wear fatigues in the mess and converse in Eskimo.
Favourite Expression: Hold Keft (Danish for —).

2nd Lt. Van Frachen. In Brussels was born anno J. C. 1932 Alphonse J. M. M. J. Van Frachen, a 2nd Lt. in the BAF since 1950; in the family we call him FLOR. As every Belgian Nav he too is a D.P. (disappointed pilot). In 1952 he came to Summerside to learn English, navigation and square dancing. Back in Belgium he did his wintersleep as an Intelligence Officer to awak in Jan. '54 and come to Winnipeg "officially" for AI, "privately" to collect heaps of letters from a certain Monique and a dozen other girls.

Ambitions of his: (1) Getting married in a "scramble," (2) Belgium, javelins and REAL beefsteaks!

2/Lt. Wyckaert, Kamiel is full-blooded Flemish born in Reninge in 1930. Joined the Air Force in 1950 and had unsuc-

cessful pilot training in Texas in 1951. After graduating from the 1 ANS in Summerside in 1952, he went to Belgium, but kept trying to get back to Canada, and finally succeeded.

Hobby: Listening to others speaking about girls.

Ambition: Make everybody speak Flemish.

Favourite Expression: Port . . . Excuse me, . . . starboard.

1/Lt. Wijnen, George. We call him George as we share refreshments; "Mijn Luitenant" when we address our superior; he has been in the BAF since 1947. We wonder how he passed even one of his exercises for up to now he still does not know his port from starboard nor his left from his right. He nevertheless has attended school continuously since his birth in 1915. From lower grade via high school arrived in the Royal Military College where he spent three years. There he hear the call of the A.F. and soon he was in Texas for Pilot Training, soon he was back as a Disappointed Pilot and soon again the RCAF "appointed" him on 21 Oct. '52 to be a navigator after 9 months of training in Winnipeg. He spent one year in Germany before he came back to Winnipeg. Grand total 26 years at school. What school next, Georgie!

His two main ambitions:

(1) earn at least one day's pay as an operational navigator before his retirement.

(2) to "pigeon" on 24 Apr. with a big "gate" like a "chicken" to its nest in a gov-forgotten "target" in Limburg (Belgium) and there pancake, fuel plus, ammo "plus" near his dear wife.

F/C An Hansen (RDAF). After a long career in the Army making interceptions from banks he has now switched to airborne operations. "Bubble" (his nickname) leads the class in sport activities, and his keenness can be seen in the mornings when he is skiing down the hallways in nose-up position. Amongst his many Winnipeg-made friends Indians and movie stars; after visiting these he usually takes refreshments in the streetcar terminal on Main Street.

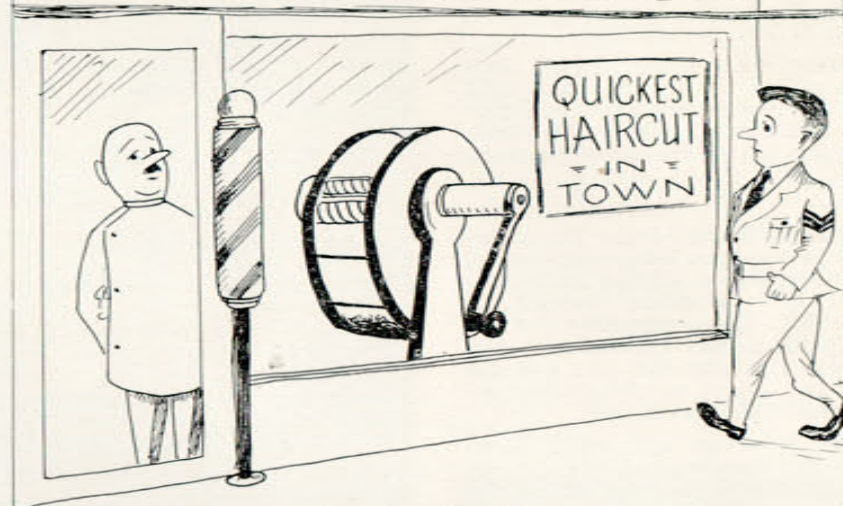
F/C H. O. A. Kjeldsen (RDAF). Kjeldsen originates from a town in the northern part of Denmark, not yet named, but he is very proud of it, and tries to make everybody else proud too (except when the town cannot be seen during floods). If anybody requires help in getting out of a "charge" this "Tiger" certainly has some advice to offer (something with Xmas candles, I believe).

Hobby: Everything and YMCA.

(As far as we can understand from his talking while asleep his highest ambition is to be a sultan with a harem of women, min. weight 200 lbs.).

Alfred Meyer. We think it would be superfluous to describe the physiogomy of our sympathetic COC — everybody already had a chance to look at him. If he seems jovial and humorous don't be surprised — that guy came in a straight line from France's most famous vineyard, undoubtedly Burgundy — hometown Ivry en Montagne (cote d'or). But don't worry, if you meet him sometime at the bar don't hesitate to offer him a cognac or a bottle of champagne. He never says "No" but simply "you are my friend" and with that you are well paid. He is a blip fighter and a hot one — ask all the instructors, nobody wants to fly with him anymore — why? That's a good question. Maybe because he can't see well and has to go too close to the target to recognize it or he may be doing the job too well and no one can teach him anymore.

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Favorite Expression: "On est des jules et on la bien en main."

If he seems uninterested in girls don't be astonished for he has the most beautiful mermaid waiting for him in France and a lovely baby too. We wish good luck and God speed to you, Freddy.

F/O Larry Tilbury. Larry began his Air Force career in 1946 as an airman. He transferred to aircrew and commenced his navigation training at Summerside. Upon completion of his training he shifted his sextant to a Lancaster and shot the sun and for about 2½ years in Greenwood on Squadrons. Still shoots well.

About 25 weeks ago while Larry was quietly spending his leave, minding his own business, some friend (?) posted him to Winnipeg (sneaky trick, eh). But it can't be as bad as all that — can it?

It is rumoured that Larry has logged more airborne pit-time in his 12 weeks here than any of the pilots and they spent two years here.

His biggest boob was telling the wife he was working on AIE when actually he'd been to a Mess dinner.

Louis Jean Pallaver — ENCAUSSE — LES — THERMES — HAUTE GERONNE — FRANCE. Don't try to look at a map to find the location of this town. You'll never see it but if you ask John where this big city is to be found, he'll **certainly** tell you "it's just a suburb of Paris. Actually there is 400 miles between Paris and Encausse les Thermes. If he is stronger than you, please don't tell him. You have certainly never before met so perfect a gentleman and so courageous a man, always ready to help those who don't need it.

Hobby: Filling his locker with dirty socks to kill mice — and his buddies.

Favourite Expression: "On les aura."

What? Try to find it!!

Anyway, good luck, John.

AWF DANCE

Master of Ceremonies: "Set Up."

AI Students:

"Roger searching . . . no joy . . . contact! 40 starboard, level, 20 feet, speed synchro . . . buster gentle starboard.

—Bogey coming toward dead ahead . . . overtake increasing.

—target dead ahead . . . slightly below 3 feet.

THROTTLE RIGHT BACK!!

—Friendly monster . . . overshoot port . . . hold speed.

Contact . . . Bogey 40 port 20 feet increase 20 target going away —5 18 feet overtake 100+.

We are in a true beam with fighter advantage.

Port — harder — hold.

—Target is port 10 feet overtake 100+ 10 starboard 8 feet . . . steady starboard hard . . . target holding 15 starboard overtake 50 . . . harder

. . . hold . . . ease off . . . steady . . . port hard . . . throttle back 20.

—Target doing evasive action . . . we are in astern chase . . . target at 2 feet speed synchro. Bogey identified as a chicken increase 10 to hold formation flying.

—Minimum range. Chicken streamlined with engine nacelles, under slung and protruding, with pointed nose . . . rounded tail with symmetrical taper . . . well shaped fuselage . . . fixed undercarriage . . . with climatized cabin.

—Tight formation — wing to wing. Lock-in cannot be made because of enemy jamming. Power on stand by and operate. Following chicken movement with hand control elevation increasing . . . climb . . . climb faster. Target spotlighted . . . contact is made and lock on established . . . hard evasive action.

—Break lock . . . fuel plus. Pancake hurt . . . orange sour . . . hey rube . . . request pigeon.



G/C Ingalls congratulates the captain of the unsinkable navy hockey team.

TODAY IN SPORTS

(Continued from page 7)

BOXING

Station Winnipeg has come into its own in the boxing field in the nature of Keith Gusway, once the pride and joy of the Police Athletic Commission in the city of Regina. Keith started his squared circle career in 1948. In 1951 he joined the navy and carried his boxing savvy into the Navy rings. Gus has had 34 fights in his short career and so

far has only dropped three. These were all by the decision route, so the old record is beginning to pile up. He went to Regina on the 9th of April, but dropped a close three-round decision to Larry Cavanaugh of that city. We expect great things of Keith (Gus) Gusway here at Stn. Winnipeg. Watch this column for further info on Gus.

Getting back to hockey for a

moment it seems we called the wrong shot on the semifinals in the National League. Well you can't pick a winner every time so we'll go further out on ye olde proverbial limb and pick Montreal to cop the spoils. Are you listening Dick Irvine???

Well kind people it's been fun keeping you posted on the happenings in and around Winnipeg and some day we might get to know a few of you somewhere. One never knows, does one? Before I sign off entirely I'd like to take this opportunity to wish you all a fare thee well in whatever your chosen endeavour.

That's 30 for TODAY IN SPORTS.

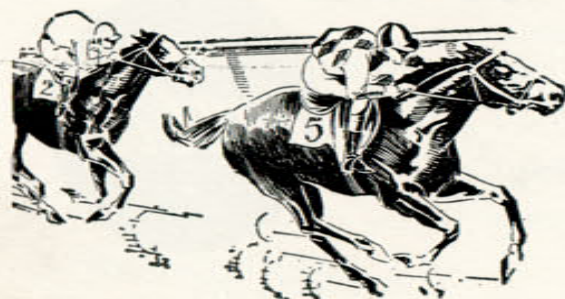


The station champs with their individual prizes and the Curling Club president holding the station trophy.

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(Continued from page 25)

in "G" needed to round out the dive and the accompanying increase in the lift coefficient may result in unacceptably severe buffeting which would discourage any further attempts to increase speed until the problem had been presented to the engineers for their consideration.

The necessity of diving most present-day aircraft to investigate the high Mach number characteristics and the problems associated with ability of carrying out the exploratory manoeuvre point out the advisability at high altitude.

It is probably unnecessary to dwell on this aspect of the subject as the reasons are fairly obvious. But to enumerate them briefly—for a given true airspeed the Indicated Air Speed or dynamic pressure on the aircraft is only 50% of the sea level value, when flying at 40,000 ft. The speed of sound is 100 m.p.h. lower above 35,000 ft. A normally strong research or fighter aircraft is almost impossible to break above 35,000 ft. and finally, the control forces are lower because of the reduced air speed.

While a great deal is now known about the behaviour of aircraft in the transonic speed range, the variations in behaviour which occur, not only between different airplanes, but also during different runs in an individual aircraft, can be quite interesting and exciting and are not yet fully predictable in advance. A slight change in elevator angle may cause a steady nose down tendency to suddenly become an uncontrollable oscillation in the pitching and rolling plane. Such things can only be established by the test pilot, not in one or two daredevil dashes to high Mach number but by a carefully planned and observed series of tests extending over a long period of time with much deep thought, consideration and review with the design engineer at each step. To quote from an article by John Derry, who was one of the foremost test pilots in the development of transonic flight:

"Gradually the boundaries of speed have been raised. Recent experience has indicated that flight at supersonic speed is more remarkable for its smoothness than for any other characteristic. Although the

full significance of the transonic region is not always understood the description of a barrier is not so inaccurate for once beyond this point problems there may be but they will more probably be predictable and relatively consistent. It has in fact been the biggest barrier to flight progress we are likely to experience for some time to come."

PLANE FACTS

(BACK COVER)

The B-47 is a high-wing medium-bomber powered by six jet engines slung beneath the wings. Two engines are mounted in a single nacelle on each side of fuselage and one in single nacelle near each wing-tip. Wings and stabilizers are sharply swept back giving an arrow-like appearance, fuselage is long and narrow with tapered high fin, tail cone extends beyond rudder. Aircraft has retractable bi-cycle u/c composed of 2-wheel trucks with smaller wheels in nacelles. Has JATO openings in fuselage side after trailing edge. Span: 116 ft. Length: 107 ft. 6 ins. Engines: G. E. TG-180 (USAF-J.35). Speed: 550 Knots. Armament: Remote controlled from tail.

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