

CPA FLIGHT LINES

Vol. 4, No. 10

December 1987

Season's Greetings



CPAer Dick Mansfield poses by a 90 hp Cub on Floats at Brennan Seaplane Base, Oshkosh. See story inside.



COLORADO PILOTS ASSOCIATION, INC.

P. O. Box 38555 Denver, CO 80238

THE PRESIDENT'S CORNER

by Don Welsh

Becoming president of CPA is a little like the pilot who was addressing the passengers on the intercom system. "I seem to have lost my way," he said. "The radar is out of order, and all communications have been lost." He paused. "You will be happy to know, however, that we are still traveling at full speed."

Our compass is being re-installed and the program for the coming year is under development. Our Nav/Com is being realigned and with the continued help of your executive board and area representatives we can maintain two-way communications.

Meetings of the executive board are held on the first Thursday of

each month at 1900 hours in a meeting room at the Centennial Flight Service Station. Should members have questions or suggestions, a call to your area representative may provide a solution or become an agenda item for the executive board.

Space is limited in our meeting room; however, our meetings are open and we welcome visitors especially area representatives.

Our radar has been known to be suspect at times and your help in circumnavigating the turbulence of storm clouds is always most welcome.



PRESIDENT

Don Welsh
303-366-3408

VICE PRESIDENT

Bill Greener
303-989-4654

SECRETARY

Bill Totton
303-364-5238

TREASURER

Don Vander Ploeg
303-757-1310

VICE PRESIDENT**AT LARGE**

John D. Warrender
303-351-0892

PUBLISHER

Colorado Pilots
Association
P.O. Box 38555
Denver, CO 80238
EDITOR
Terry Barbo
303-367-0670

TYPOGRAPHY BY

George Ferguson, Inc.

Publication Notice

The CPA Flight Lines is published once each month. Articles for the CPA Flight Lines are sought from members and other persons or organizations. Stories and articles can include flying tips, rebuilding and restoration experiences, special trips, activities, etc.

All articles should be **sent to:**

CPA FLIGHT LINES editor

Terry Barbo
12579 E. Cedar Ave.
Aurora, CO 80012

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**There will be NO
FLIGHT LINES
published in January.**

**Copy Deadline for
FLIGHT LINES
10th of the month**

if timely in nature; other
Material for publication welcome anytime.

OSHKOSH, EAA FLY-IN, 1987

THE BRENNAND SEAPLANE BASE

by Dick Mansfield

On previous flights to Oshkosh, I've had the opportunity to see the seaplane base/anchorage from about 1800 AGL, and had made a mental note to go over and visit the site when there was ample time to spend just looking.

This year I returned with paper, pencil, and a loaded camera to record and meet the owner, operators, and volunteers that make the Seaplane operation, a part of EAA, work so smoothly that no one knows it exists until their scheduled fly-by on a Monday afternoon, where dozens of float-equipped aircraft and amphibians pass in review before several hundred thousand people watching at nearby Wittman Field, home of the world's largest fly-in heaven. An added bonus is the chance to talk to and watch these pilots and their special aircraft.

I had rented a car, so transportation was no problem in getting about the city and surrounding countryside. The base is located about 6.5 miles southeast of the city limits of Oshkosh, and on the shore of Lake Winnebago, the largest body of water, I'm told, in Wisconsin, stretching 30 miles north/south, and 12 miles east/west. It is a rather shallow body of water and winds cause unusually high waves requiring close attention, whether boating, sailing, fishing, or landing or taking off in a seaplane. Originally from Detroit, I was no stranger to large open bodies of water, and the havoc unexpected winds and weather can bring. I was looking forward to this as my last--and only--plane ride off the water was taken in a Republic Seabee on the Detroit River over 26 years ago.

Driving along the lakeshore early in the morning, I could smell the fresh air tinged with the aromas of pine, sumac, corn fields with stalks over what I estimated to be 8 feet high, and the smell of the water. The sun was shining and hearing the drone of an aircraft engine I looked up and saw a float-equipped Cessna parallel to my highway route heading south as I was, no doubt with the same destination.

Finding the road off the main highway, I found a parking space on the shoulder and went up to introduce myself to the Civil Air Patrol cadets that provide security. The seaplane base, like Wittman Field, is open to members of EAA, their guests, and the general public is not allowed. One thing that I do have to mention is that the seaplane base, on private property, is only open during the EAA Fly-In week. It does not function, as such, the remainder of the year.

With camera in hand, and necessary writing equipment, I began the 150 yard walk down a beautiful tree-lined gravel driveway. Interesting signs posted on either side of the driveway pointed out the abundant foliage that did not require closer inspection. First, I can read, and secondly, I know what poison ivy looks like! You would not want small children unattended here, much less us big kids.

I increased my strides as I could hear aircraft engines up ahead, but because of the timber, I could not see all of the activity. You could feel the freshness of the air and smell the water close at hand. And round a curve, several vans were parked with many people standing around

chatting. From past military habit, I inquired where headquarters was located and several men pointed out the lone solid structure in the area. A small door at rear, and a large eight foot wide door on rails in the front, with a sign overhead proclaiming "Welcome to Oshkosh!" I had arrived, and greeting me was "Sam" Brennan, a lovely lady who introduced herself as Bill Brennan's wife. Today, she was the lady in charge, and along with Al Ziebell and several volunteers, they would be taking care of the day's operations here at what is known as Brennan's Seaplane Base, during Oshkosh week. There was a scheduled trip to Wittman Field, and the van drivers were waiting on passengers from the camp who wanted to get an early start on the day's activities.

Later, Bill Brennan was able to free himself of all his other duties at EAA headquarters and we

spent some time going over the history of the seaplane base and its operations.

Two nicer people I have yet to meet in the span of a few minutes, so I explained to "Sam" that I wanted to do a story on the base, its operators, volunteers, and the pilots who fly in from nearby states, Canada, and, I was told, as far as Alaska, and Nova Scotia.

I also promised to stay out of the way, so I busied myself taking pictures, and talked to pilots and their camping guests in the designated campground area located around the west side of this beautiful natural protected bay. When the water level is up, the bay resembles a large whale with its tail in the air. There is an opening about 125 feet wide that leads from the open waters of the lake into this protected area, with high, heavy tree growth along the shores protec-



Dockside activity at Brennan Seaplane Base—Lake Winnebago.

ting against high winds and affording a natural anchorage. You couldn't ask for a more beautiful and idyllic setting and I can see why the pilots I have spoken to enjoy flying in and spending the Fly-In here, and spending just enough time at Wittman Field to satisfy their needs to be in that enormous rush of people and the hustle and bustle of the programs. Transportation is not a problem as the vans are on a schedule that affords access to Wittman Field, and then public bus transportation can get you into Oshkosh itself, if necessary.

Canadian pilots were in noticeable numbers this year. I was told that over 70 planes were anchored this year, coming from all over the region; as far east as Nova Scotia, and from a base located 160 miles north of Vancouver, B.C. In fact, I did speak to the pilot from that location and he had purchased a new Loran C and was anxious to install and try it out here. As it turned out, his schedule changed due to weather and he had to leave earlier than planned.

This year, every campsite, and every mooring anchor was used, and the Monday afternoon fly-by was well attended and enjoyed by thousands who witnessed the demonstration over Wittman Field. This was a sight that few get a chance to see unless they live in the Great Lakes region, or Canada. A large flight of seaplanes in formation is a rare sight no matter what side of the border you live on, and this year was no exception with the announcer identifying each type for the crowds.

With hundreds of lakes and rivers, the float-equipped or amphibian pilot has greater utility and opportunity than his wheel-equipped brethern, and it certainly opens the door for some interesting trips and adventures!

Brennand Seaplane Base has been in operation here for the past 17 years. The parcel of land is owned by Bill Brennand and he is a member of EAA, #13078, donating the "base" to EAA each year for the Fly-In. He has been ably assisted these 17 years by Al Ziebell, EAA #55055, and a core of volunteers headed this year by Bob Williams, EAA #37190, of Chippewa Falls, WS, who provided drinking water, the famous Chippewa Mineral Water, as a distributor. It makes excellent hot water for coffee and tea for the chilled mornings by the lake.

Wilmette Ziebell, Al's lovely wife, showed me the beautiful plaque presented to Al by his friends, fellow pilots, and volunteers here at the base where he has worked so unselfishly giving his time, his knowledge and expertise when and where needed. This will be his final year at the "Base," and as he stated, it's time to really retire. "Mom" (his wife, and known to everyone as "Mom") will appreciate that almost as much as I will, says Al.

Arriving aircraft tie up to the floating docks, where pilots are registered along with their guests. They are given information kits and campsite assignments, if needed. They can also purchase fuel, soft drinks, mineral water, and there is a phone hookup for necessary calls. Portable johns are available as well. Aircraft are then towed by outboard to mooring sites and are fastened to concrete anchors embedded in the bottom of the lake. Room is left between the moorings to allow aircraft to swing with the wind without coming in contact with other aircraft.

The camaraderie is exemplified here by the willing participation of the pilots and their guests to help out one another when called upon, and for maintaining the



Brennand Seaplane Base and campsites on Lake Winnebago.

standards set by EAA. The Seaplane Pilots Association is seeking new members and are located at 421 Aviation Way, Frederick, MD 21701 (301) 695-2083. The Executive Director is Mary Silitch.

Arriving back at the "Base" after dark, many tiny tents dot the shore line, with flickering lanterns and "mountain candles" swaying gently in the evening breeze off the lake. The scene is certainly far different than at Wittman Field. At night, you can lie in your sleeping bag listening to the waters lap the shore and the many pontoons of aircraft moored nearby. Water pilots like to stay close to their ships, day or night. The voices of the campers grow quieter as the night deepens, until finally, all you can hear are the occasional loons and an owl. Sunrise and sunsets are worth remembering.

An interesting and successful floatplane course was offered this year by John Frisbie. The

course was a three-day affair with a hoped for seaplane rating added to your ticket for the price of \$399.00. John is the owner and operator of Round Lake Seaplane Base, located in Hayward, Wisconsin (Rte #9, Box 9282 Zip 54843, phone 715 462-3792). The course was full for the entire week, operating daily for almost 12 hours a day. It looks as if he will offer this course again next year, baring any unforeseen problems. Reality!

A full time captain with American Airlines, John gave me some insight into the operation of a seaplane base. His first comment, of course, had to deal with insurance. The increasing costs have closed over a dozen seaplane FBOs in the Great Lakes region alone. Another factor to consider is that the student often wants to add the rating and it becomes difficult when there is no actual utilization of the rating on a day-to-day basis, an almost necessity for safe operation.

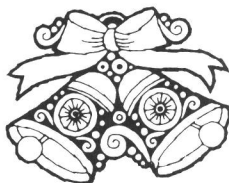
There is much to learn when operating an aircraft whether on floats or as an amphibian, and practice is required to maintain that degree of efficiency that goes hand in hand with a safe and pleasant flight for pilot, passengers and aircraft. Rental aircraft, unlike land planes, are expensive and requirements are rigid, often eliminating the occasional renter/user pilot. This leaves the purchase of such an aircraft as a necessity, or the newly rated pilot loses interest and proficiency. Back to square one! This scenario does not a seaplane pilot make. I thanked John for his time and his candid comments.

A great many of the ultralights on floats and amphibians were here at the "Base" daily, and certainly provided an interesting variety as to performance and utilization as compared with their big brothers. The high wing Cessnas were the predominant breed, with the Pipers, all high wing models, Lakes, Beavers, and Sea-Bees next in numbers. Then there were several homebuilt amphibians, the Air Shark, and my favorite, the Avid Amphibian, in

which I had a chance to take a demonstration ride. If you want information on that model, just ask me. I also had a ride in a J-3 Cub on floats, and the Ultralight two-place Buccaneer, which was also spectacular. The Air Shark was having some mechanical problems, but with its 200 hp Lycoming, its performance of 190 mph plus in cruise, four place seating, range and load carrying abilities make it a front runner in the composite kit aircraft. I've got a rain check ride in that hummer!!

Well, what else can be said. Personally, if I had my choice as to how and where to stay at Oshkosh, and, in fact, how to arrive there, this would be it! Incidentally, if anyone from our Rocky Mountain area is planning on taking his or her float plane or amphibian to Oshkosh next year, please keep me in mind. I'd even make a change on my Oshkosh to Oshkosh calendar (that we all have, right?); otherwise, I'll be back in '89 maintaining my every other year routine...

See you there!



**SEASON'S GREETINGS
TO ALL**

HEARD ALONG THE FLIGHTLINE

Congratulations to CPAer VERN FOSTER on being inducted into the Colorado Aviation Hall of Fame during ceremonies held at the Officers Club, U.S. Air Force Academy, Colorado Springs, on November 22. Proudly looking on were wife, KAY; son, BILL, a Navy carrier pilot stationed in Texas; and Vern's sister, DOLORES CARR, from Kansas.

*

Other CPAers in attendance were: BABETTE ANDRE, WALT and TERRY BARBO, FRANK and VANITA GALLO, HAL and VIVIAN GAMBLE, BRUCE HULLEY, SAMUEL and TINA LOVE, GRACE MAYFIELD (a 1983 inductee), FRED and ANN NORTON, LEE PORTER (CPA Area Representative, Pueblo), EVAN SLACK, BILL and BEVERLY TOTTEN, and DONALD "Rody" RODEWALD (a 1986 inductee).

*

BABETTE ANDRE informs us that she earned the FAA's Phase VI Wings in October. This was presented to her by MICK WILSON at the FAA's District Office recently. Congratulations, BABETTE! On the down side, however . . . the blue stone in the set of wings has already disappeared.

*

The CPA Fly-In to Minden, Nebraska, scheduled for the weekend of November 14 was cancelled because of bad weather. A total of 55 people were planning on going, according to FRANK and VANITA GALLO. This appears to be somewhat of a record turnout. Several people were coming from the adjoining state pilot associations as well as Nebraska

itself. The fly-in was held the following weekend instead with a lesser number of people being able to attend.

*

Tried telephoning 360-5212 in Denver yet? You will get a computer voice generated response of current weather conditions at FRONT RANGE AIRPORT. It's their new Automated Weather Observation System (AWOS). They are rightfully proud of it.

*

ED BOWMAN, Channel 2 weatherman, tells us his Ryan ST is back together and in near flying condition. Ed first gained public attention with the aircraft several years ago . . . following a serious accident in one of his first flights in the antique bird. And a number of times later during his restoration efforts. High speed taxi tests are underway. He hopes to have it airborne by early spring. The event should draw an admiring crowd.

*

FAA Headquarters in Washington, D.C., tells us that the proposed rule for a single class TCA which was scheduled to become effective December 1 will slip into January or beyond. Recall that the rule would require Mode C transponder reporting within 30 miles of the primary TCA airport from the surface through 12,500 MSL. Any who are curious for updated status reports should call the FAA at (202) 267-8783.

*

Notice that you rarely meet anyone opposed to a STATE AERONAUTICS OFFICE in Colorado? Nor do you encounter anyone who is willing to lobby aggressively for the office . . . which tells us something about why the proposal ends in failure each year.

*

GEORGE McCRILLIS has been looking out of state for a Cessna T210 built prior to 1968. Seems 1968 was the first year for fully-cantilevered wings. And GEORGE has so much time in a 172 that he can't bear the thought of flying an aircraft not having wing struts. If he wouldn't mind staying with fixed gear also, we could refer him to a super nice T206. DARYL HEARTHER is looking to trade his T206 (pictured on the cover of October FLIGHT LINES) for a P210 STOL equipped.

*

GEORGE also tells us he has gained STC approval for his engine pre-oiler. The pre-oiler is one of his inventions which uses an electrical driven supplementary oil pump to gain oil pressure prior to engine start. He first proved it would work on the family automobile. The first aircraft with STC approval is the Lycoming powered Cessna 172 Skyhawk. Have to guess his next target STC will be for an early model T210.

■UPCOMING MEETINGS■

Friday, January 22, 1988

Our January meeting will be held in Centennial Airport's new Control Tower/Administration Building. The FAA controllers will provide a tour of the new Control Tower facilities, followed by a presentation by Mr. GREG FEITH, a National Transportation Safety Board investigator. Greg has performed the NSTB's investigation on many of the local aircraft accidents and is currently involved with the recent Continental accident. His presentation will include slides and tapes. We can learn from the mistakes of others.

Saturday, February 13, 1988

Fulfill your Valentine's Day obligations and enjoy a great meal with your fellow CPA members. We have arranged a "Family Style" dinner at County Line Barbecue, located just west of Broadway on County Line Road. The dinner will include barbecued ribs, chicken, beef, pork and sausage with all the fixin's for only \$15.00 per person.

Following dinner our president DON WELSH will show the great Confederate Air Force movie "Ghost Squadron" while we enjoy coffee and after-dinner refreshments. For reservations, contact TOM DALY at 337-6984. Call early as space is limited.



1988 CPA SCHEDULE OF EVENTS

- Fri., Jan. 22 CPA MEETING, 7:30 p.m. at Centennial Airport Control Tower & AD Bldg. Program: Presentation by NTSB's Greg Feith on aircraft accident investigations and NTSB's operations. Also a tour of the new Control Tower. (INFO: Tom Daly 337-6984)
- Sat., Feb. 13 CPA DINNER MEETING, 6:00 p.m., County Line Barbecue Family Style Dinner (\$15.00 pp) - "All you can eat" Program: Confederate Air Force film "Ghost Squadron" Reservations required. (INFO: Tom Daly 337-6984)
- Sat., Mar. 19 DENVER CENTER, Longmont - FAA RAIN CHECK seminar
- Wed., Mar. 30 LEGISLATIVE COFFEE, 7:00 - 9:30 a.m., State Capital Rotunda - Meet members of Colorado Legislature
- Sat., Apr. 2 EASTER FOOD LIFT
- Sat., Apr. 9 SAFETY SYMPOSIUM, Metro State College (Alpha Eta Rho)
- Sat., Apr. 30 MEADOW LAKE FLY-IN - Lunch
- Fri., May 13 CPA MEETING - Location to be announced
- Sat., May 21 CPA "MINI" AIR CLASSIC - Pueblo Fly-In. Precision cross country and fuel consumption contest - prizes and trophies. Also, guided tour of Pueblo Air Museum
- Fri. - Sat., June 10-11 MOUNTAIN FLYING COURSE - Colorado Springs Airport
- Sat. & Sun., June 25-26 WINGS PROGRAM - Location to be announced
- Sat., July 9 12th ANNUAL CPA DENVER-JACKPOT AIR CLASSIC, Front Range Airport to Cactus Pete's, Jackpot, Nevada
- Sat., Aug. 13 AIRMANSHIP CONTEST - Location to be announced
- Sat., Aug. 27 WINGS PROGRAM - Location to be announced
- Sat. - Mon., Sept. 3-5 CPA LABOR DAY FLY-IN, Angel Fire, NM
- Sat. - Sun., Oct. 1-2 BURLINGTON FLY-IN - Tour of "Old Town" and melodrama
- Fri. - Sat., Oct. 21-22 CPA ANNUAL CONVENTION - Location to be announced
- Thurs., Nov. 17 CPA MEETING - Location to be announced
- Fri., Dec. 9 CPA CHRISTMAS DINNER - Location to be announced

USPA OPPOSES TERMINAL CONTROL AREA CHANGES

The United States Pilots Association Board of Directors, at its fall meeting held in St. Louis in October, voted to oppose the FAA proposed rule which would expand and establish a single class Terminal Control Area (TCA) and which would revise the associated pilot and equipment requirements for operating in the restricted airspace.

In a letter to the FAA commenting on the proposed rule making docket, USPA Executive Director, Arnold Zimmerman said, "The United States Pilots Association is opposed to the NPRM as proposed by the FAA."

The FAA proposed rule would require an operating Mode C encoding altimeter in all aircraft flying within 30 nm of the TCA center, would extend the minimum ceiling of all TCA's to 10,000 feet and would configure the restricted airspace to a maximum 30 nm radius from the TCA primary airport.

Of primary concern is the requirement that Mode C be used within 30 nm of the TCA center because of the compounding of the already serious safety problem of an overloaded ATC system which cannot handle existing traffic. This requirement can only cause additional delays of commercial aircraft and decreased utility of general aviation. "We feel that it is highly improper to turn over the airspace of this nation to commercial interests without regard to the effect on private citizens. The proposal to continue to expand large blocks of controlled airspace is not seen as the best response to increased safety and accommodation of the needs of all users of the airspace." stated Zimmerman.

USPA feels that the recent and proposed airspace restrictions and equipment requirements lack a well-developed technical foundation. "These ill conceived, politically motivated actions should not be allowed to continue.", said the USPA Executive Director.

The United States Pilots Association representing more than 5,000 members is a non-profit association of fourteen state pilot organizations and their members which are united for mutual support, aviation safety and pilot education.

WELCOME NEW MEMBERS

GREEN, Beverly
2501A S. Victor
Aurora, CO 80014

LEMKE, Karen B.
577 Eastern Ave.
Brighton, CO 80601

MILLER, Ron L.
8549 W. 7th Avenue
Lakewood, CO 80215

NUTTING, Eugene
13800 E. Marina Dr., #506
Aurora, CO 80014

ROSSETTER, David B.
2990 Linden Dr.
Boulder, CO 80302

SCHOLTEN, Anna
10800 E. Jewell Ave.
Aurora, CO 80012

IS THAT ALL THERE IS?

An account of a 4,098 nautical mile flight from St. Louis to Edinburgh, Scotland via the North Atlantic in a twin Cessna 310

by Bob Zeiting

Part 3 of 3

ABOUT THE AUTHOR . . . Bob Zeiting lives in Kirkwood, Missouri and is an advertising executive in St. Louis.

Before the North Atlantic crossing, Bob had criss-crossed the U.S. a number of times and flown in and out of Canada, Mexico, and the Bahamas a number of times.

Bob and his airplane partner of some 15 years now have a straight tail Bonanza loaded with equipment, including AM-FM stereo radio and cassette player for passengers. It's the best airplane he's ever had, he says, in some 24 years of flying.

And he's ready again for the North Atlantic although he'd prefer first to fly around the perimeter of South America. He already has the charts.

Leg 4/Frobisher to Sondrestrom
Air Force Base, Sondre Strom-
fiord, Greenland: 499 n.m. (574
s.m.) 2+48 flight hours

Departing Frobisher, we went direct to Cape Dyer, a dew line outpost, at the western edge of Davis Strait. From our aircraft we could see their radar observation "bubble" and their "private" airport.

On reaching Cape Dyer, the signal from Frobisher's non-directional radio beacon, about 250 n.m. behind us, was just beginning to diminish. We had been tuned to the Cape Dyer

signal for some time, however, we tuned in Frobisher just to test its signal strength. Departing Cape Dyer, we tuned in Holsteinborg radio beacon. It surprised us that it was quite audible and quite readable.

On leaving Cape Dyer to cross the strait, we saw considerable pack ice on the water, some of which was surrounded by the same emerald green I had noted earlier. A call to Cape Dyer radio for information helped. The emerald green, Cape Dyer's radio operator said, was fascinating to him, too. He said he'd asked about it when he was flown into Cape Dyer and was told the emerald green is pure water, glacial water.

Soon we arrived at the west coast of Greenland, where the granite-appearing rock is quite red except where the mold of the fern leaf is strong and creates a greenish cast. As we continued inland from the Holsteinborg beacon we soon became aware of the ice cap that covers all of Greenland. It caps the 4,000-foot mountains that ring the Sondrestrom airport on three sides, and its tentacles reach down the mountainous draws. Eventually, it seems, the ice cap will reach down and clutch the airport.

We continue to let down to the narrow, paved runway. The tower clears us to land. But we see an "X" on the runway, forbidding its use. Now it becomes clear. The "X" is on the right half; the center line identifies the center of the left half of the already narrow runway.

It is easy to understand the situation. There are no alternate airports, and Sondrestrom has only one runway. So to keep the airport operating, they repair one side of the runway at a time.

Sondrestrom is a bright, cheery place. At the bottom of the bowl in the summer sun, there is absolutely no hint of the ice cap that lurks high above. The mountains that surround Sondrestrom rise upward, clean sided, with no trees, for several thousand feet on three sides of the bowl in which the single runway airport is located. A pilot can not afford to be too far off the localizer landing system or he will pay a rock-hard penalty.

The airport has a lot of traffic, or so it seemed during the brief time we were there refueling and having lunch. Helicopters fly to Greenland's coastal villages from Sondrestrom, after connecting with jet flights that arrive from Scandinavia and Canada.

Leg 5/Sondrestrom to Reykjavic,
Iceland: 749 n.m. (861 s.m.)
4+18 flight hours

Our aircraft's directional gyro appeared to malfunction on the approach to Sondrestrom. Departing Sandrestrom, we felt that it was not functioning properly at all. It is 10-20 degrees off but not consistently. However, we have a backup directional gyro, which, despite its precession, will serve adequately.

The magnetic compass floats a great deal. Sometimes it is difficult to average the many directions indicated. Since neither of us have had prior experience flying so close to the north pole, we assume the compass' extensive floating is caused by our proximity to the

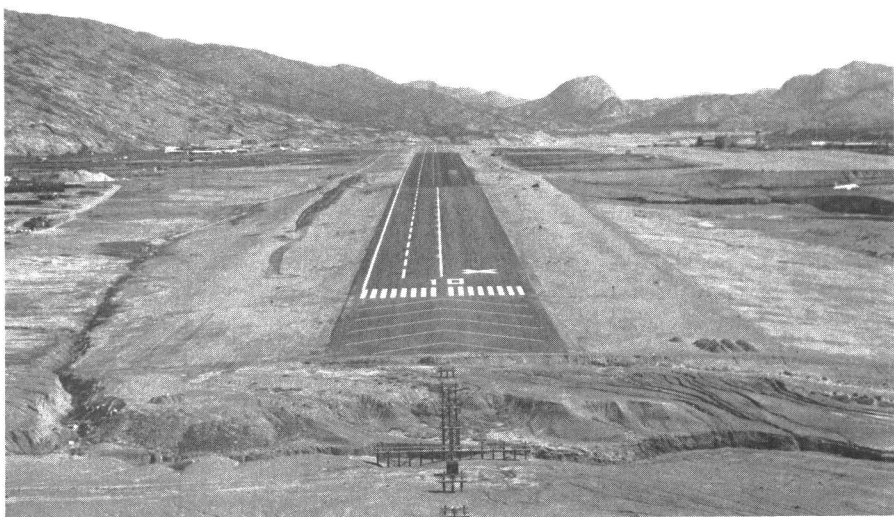
pole. Vibration can cause a compass to float but the airplane wasn't vibrating any more or less, in our judgement, than it did when we departed St. Louis. The Operational Navigation Charts bore this cryptic comment: "MAGNETIC NOTE: Because of weak directive force and magnetic storms, the compass becomes increasingly unreadable approaching the magnetic pole from a distance of 1,000 miles." We were in that neighborhood. Magnetic north is some 1,000 miles from the geographic pole and some 70 miles beneath the Prince of Wales Island in northern Canada.

We departed Sondrestrom downwind because it is basically a one-way runway. Fortunately the tailwind was only about 10 knots. The tower instructed us to "maintain runway heading and climb to 4,000 before turning on course." On this perfect VFR day one could easily understand that the nearby mountains precluded any turns before reaching 4,000 feet.

The clearance for our route over the icecap specified 13,000 feet above sea level. The ONC chart reported in large, bold letters, "MAXIMUM ELEVATION FIGURES ARE BELIEVED NOT TO EXCEED 13,600 FEET." Other notes advised that Greenland was largely unsurveyed. And, interestingly, the Jeppeson Chart did not indicate a minimum enroute altitude for the route.

After reaching the 4,000-foot level, we turned on course and continued climbing to the assigned altitude. The cloudless sky was crystal clear blue. There was no haze, absolutely.

The airplane continued climbing, resolutely. And as it climbed, the distance one could see expanded with each foot of altitude. Yet the horizon remained lifeless. Nothing new



Sondrestrom, Greenland's 9,200 foot runway. Left half with painted centerline and border indicating it was useable while the "X" on the right half means that side undergoing repairs.

ever arrived there. At 5,000 feet the horizon was white, capped with blue, and at 10,000 feet the horizon was more white capped with blue.

Greenland's icecap is overwhelming, yet it is an empty wasteland. There is nothing to see except raw, plain white everywhere. It's a penetrating, pristine white that extends everlastingly in every direction.

The airplane seems suspended in this couldless sky. There is no perception of movement. There are no clouds in the sky to betray movement. There are no trees on the icecap below to slide slowly past. No mountains below. No rivers, valleys, creeks, or draws. Only the smooth, white surface that stretches to infinity. Nothing below moves.

Only the air speed indicator says movement. There is no Loran C radio coverage and no automatic

distance measuring equipment to provide a speed or distance read-out. In this motionless environment the air speed needle ultimately is suspect. But now the continuing drone of the engines becomes comforting.

The Automatic Direction Finding needle is the sole guidance system for this 360 n.m. leg. Of course, it is followed religiously. As we continued across the icecap, we talked with dew line radar sites on the cap. The radio call sign for one is Sea Bass, the other's identifying handle is descriptive of the assignment: Sob Story.

At the estimated time of arrival in Sob Story's neighborhood, the excitement of flying over the icecap had leveled off to "How much longer does this continue?" So with a bit of boredom present we established radio contact with Sob Story. They made a radar fix on our airplane and reported our position, precisely.

"As of 1318 Universal Coordinated Time, N87429 was at 66 degrees 10 north, 41 degrees 30 west." We chatted more and learned that the group at Sob Story was not military personnel, but was instead under contract to the Air Force.

Our inquisitiveness prompted other questions such as, "How long do you stay on the icecap?"

"About 6 months. Then we get 30 days off."

"What do you fellows do for entertainment?"

"Oh, every night we get tight."

We were about 90 miles from the coast when we became conscious of a change on the horizon. There was a darkness there we had not seen before. The darkness, we reasoned, had to be the coastline. As we drew closer the darkness gradually became the reddish, granite-like mountainous rock that rings Greenland and the icecap. Soon we could see the glacier flowing downward through the draws and the valleys to the ocean. The sheer starkness of this desolate rock can be related only to a moonscape patched with snow.

And yet people live here. Soon we were flying over the tiny, sea-side village of Kulusuk and its radio beacon, and leaving Greenland to cross the North Atlantic enroute to Iceland. Most of this leg was either in or above clouds.

Reykjavik weather, when we arrived, was tolerable. Clouds were scattered at 500 and 800 feet, 6/8 cloud coverage at 1,500 feet, and more broken clouds at 4,000 and 9,000 feet. We had light rain and the temperature was 50 degrees.

Working with Reykjavik Control, Iceland Center, and Reykjavik

Approach was interesting. The controllers speak English well. A female controller we talked with was especially fascinating. Her English was excellent although her accent was strong. She spoke precisely, unemotionally, almost machine or computer-like. (Throughout the entire flight, including the several European legs, understanding accented English generally was not a problem. But when it was, the controllers were as patient with us as we were with them.)

From what little we could see of Reykjavik while on the approach, there were numerous indications that this would be a picturesque community to visit. Some of the houses appear to be quite charming with their bright, colored roofs of yellow, green, blue, and red.

We taxied to the ramp, where a baker's dozen of transient aircraft from the U.S. and other countries were parked. A corporate Falcon, and Gulfstream, several Cessna 182's, a Beech Baron, a Piedmont Airline freighter, and a DC3 on an around-the-world flight were among our parking companions.

We walked to the Hotel Loftleidir, our Icelandic hotel. It reflects Danish architecture and style. The hardware, the woodwork, even the plumbing fixtures, all have that simplicity of design at which Scandinavians excel. And the preponderance of blonde Nordic-type people, I confess, is somewhat overwhelming.

Leg 6/Reykjavik to Edinburgh,
Scotland: 745 n.m. (857 s.m.)
4+24 flight hours

The departure from Reykjavik was made after spending some time with the refueler and the plane handler. In much of the world, I had been told, the refueler and plane handler are two different

companies. Here, I would learn first hand what to expect. Plane handlers are not always absolutely necessary but they can be extremely valuable especially if you don't know local procedures. In Reykjavik, the plane handler took care of the landing fee, parking fee, and the customs fee. He also got the weather reports and reviewed them with us. And he transmitted our flight plan to the Air Traffic Control folks in the tower.

The landing and parking charge was \$18 (U.S.). Because we arrived after 5 p.m., we paid an additional \$9.90 (U.S.). The customs fee was \$5.12 (U.S.), and filing the flight plan was \$7.30 (U.S.). The handler's fee for taking care of these was \$32 (U.S.), and included arranging for the refueling and the weather briefing. Considering that the handler saves the traveler from wandering around looking for the various offices at which necessary services are available and fees are due, the handling fee is probably worthwhile. Obviously, it will vary by airport. I confess my interest in plane handlers peaked at Kirkwall in the Orkney Islands as I trudged down a long taxiway to the tower to pay the landing fee of 25 pounds sterling.

In Greenland, on the other hand, the charges were stiffer. Scandinavian Airline System handles civilian operations at this U.S. Air Force airport. They billed us \$50 for handling and \$40 for landing, even though we had prior permission from the Air Force in Washington D.C. We would have been penalized an additional \$100 if we hadn't had permission. So, with a smile we paid \$50 for handling even though we had trudged to the meteorology office for weather information and to the operations office to file our flight plan and then trudged to the SAS office to pay the handling fee.

Fuel, too, was highest in Greenland at \$4.15 (U.S.) per gallon. Iceland's fuel, conversely, was much more reasonable at \$1.68 (U.S.). These happened to be the highest and lowest fuel prices of the entire trip which also included Amsterdam, Munich, Vienna, London, and Kirkwall, Scotland. The average fuel price was \$2.52.

Our arrival at Reykjavik was in light rain, and our departure was the same. Climbing up through the misty, rainy sky, we broke out on top. The sun on the cloud tops was delightful. Unfortunately, we didn't see much of Iceland because of the undercast. But the few holes we found, however, were enough to tell us that Iceland deserves a longer visit.

(Our westbound flight proved it. Iceland is beautiful. Only 11% of Iceland is covered by glaciers. Lush green valleys, lakes, waterfalls, mountains, desert, and a rugged coastline make Iceland a photographer's gem. And learning the summer temperature is about 55 degrees and that the winter temperature averages about 32 degrees certainly improves the scenery!)

On departing Reykjavik, we talked first with ground control who gave us our enroute clearance and taxi instructions. Next, we contacted the tower for takeoff clearance. After liftoff, they handed us off to Reykjavik Departure Control who in turn handed us off to Reykjavik Control. They handed us off to Iceland Center.

On the portion of the route from Reykjavik to the Skardsfjara (SF) radio beacon in southeastern Iceland, Reykjavik Control, which had been tracking us on radar, suggested that we correct one

degree left in order to make good our course for SF. It was pleasing to know our navigation was on target.

Once away from Iceland and over water, we made position reports every 10 degrees of longitude. Before long, we reached the mid-ocean point, 61 degrees north, 10 degrees west, where Iceland Center handed us off to Scottish Control.

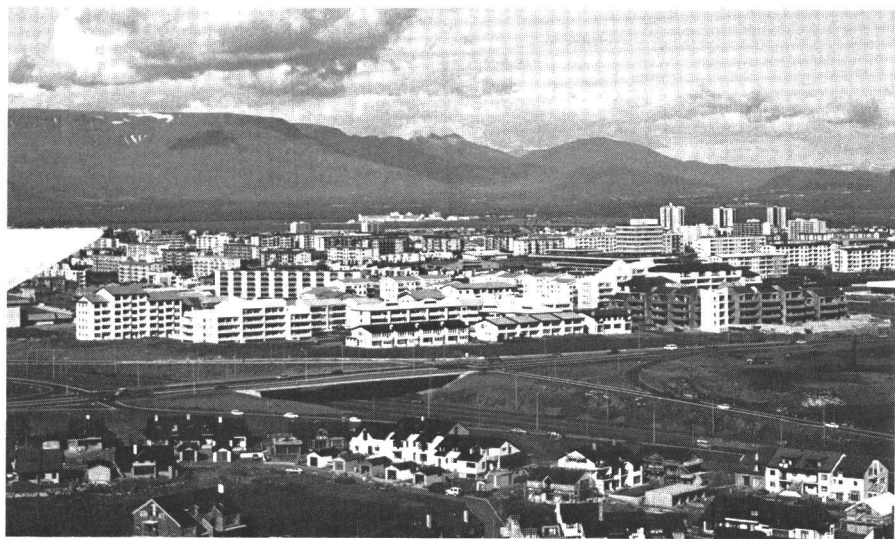
For most of this leg we've had an undercast. We've also been in and out of clouds. But occasionally they open up and we see the ocean. The white caps confirm it. We've also had icing conditions at 11,000 feet for about 10 minutes. Knowing that one can descent to warmer air at sea level is comforting.

We are presently navigating by the Loran C radio which has been working fine. Earlier, before arrival at Reykjavik, it showed unrealistic readouts. Finally it showed "System Failure." But after a brief rest, it seemed to work well again. On departing

Reykjavik, we tuned to the Norweigan Loran radio chain. We are now some 15 minutes from the northeast corner of Shanwick Oceanic Control, a point that is 61 degrees north, 10 degrees west. We still get flashes regularly on the transponder indicating that it is being interrogated by someone's radar even though we are about 230 n.m. from either Iceland or Scotland. I suspect there is a radar installation on the Faeroe Islands; they are only 130 n.m. north of our course.

En route from Reykjavik to Edinburgh, the flight time was estimated at 4 hours and 24 minutes. Almost all of this leg was with clouds underneath. True, there were occasional holes in the undercast and we could see the water below. Once I found a large hole and saw a plodding ship below.

Interestingly, as we approached the Scottish coast's Dunaway radio facility, the clouds opened and we were able to see the coastline, definitely confirming



Reykjavik, Iceland, is slightly south of the Arctic Circle. Only 11% of Iceland is covered by glaciers.

our position. But soon as we crossed the coast the sky below closed, leaving only an occasional hole to see the terrain below. What little I did see is quite beautiful. The grassy hills that rise so steep are ever so pleasing. They flow, much like ocean waves.

A radio call to Scottish Control brought news that weather conditions at Edinburgh had improved since we left Rekkjavik.

Soon we had landed at Edinburgh and were enroute to the hotel.

Later, alone in my hotel room, I pondered, "Is this all there is?"

On one hand I was quite elated by the accomplishment. I even shook Zimmerman's hand after landing at Edinburgh, and said something "bright," such as, "Well, we did it."

But the thought "Is this all there is" persisted. And as I pondered, the validity of it surfaced.

After all it was fairly simple. Plan the course. Watch the magnetic variation; it's substantial close to the poles. Be aware that winds are given in relation to true north. Most charts show magnetic courses; but some show true courses. Know the real range of your airplane. Have a doggone good ADF (automatic direction finding) radio on board. Read the Federal Aviation Regulations, the International Flight Information Manual, and whatever else you can find. Talk to others who've done it, etc.

These were most of the things I had heard or read about in connection with crossing the North Atlantic.

After all, it was fairly simple. The study and preparation eliminated most surprises, and the few that remained were tolerable.



THE BOOKSHELF

by Stephen Blucher

In the early phase of my flying career, J-3s and C-120s, I had a book that I thought was the only one I would ever need to be a pilot. In the late 1950s, "Modern Airmanship" was one of the best reference books for the fledgling aviator. Now, some thirty years later, the book is back. Up dated for the times, the 1987 issue (TAB Books No. 2411) is nearly 900 pages of aviation information useful to pilots of all skill levels.

Not many get the thrill of putting a supersonic aircraft through its paces, though there is a section on doing just that.

Basic flight techniques are discussed at some length, as are instrument flight, air traffic control, navigation, weather, and medical information.

Aerodynamics, propulsion (i.e. cooling drag(lb) = $M(V_a - V_e)$???), even wilderness flying are all covered in this exciting book.

"Modern Airmanship" also has chapters on helicopters and sail planes (but not hot-air-balloons). Even though, author Van Sickle and editor Welsh have made this month's selection quite complete.

Many of the TAB Aviation Series books are available at the Aviator's Mart in Colorado Springs. Readers may write to TAB BOOKS, Blue Ridge Summit, PA 17214, and they will send a free catalogue listing all of their available selections.

FORUM

A delegate from the FAA, an air traffic spokesperson and pilot speakers with selected topics will hold a general discussion on aviation matters on Saturday, January 9, 1988, at The Auraria Higher Education Center, Denver. The Forum will begin at 7:00 p.m. at St. Cajetan Center, Lawrence & 9th Street.

The Forum's purpose is to direct the aviation community's concerns to both U.S. senators, all U.S. representatives from the State of Colorado and to state officials. The governor, the House speaker and the president of the State Senate have been invited to attend.

Safety, communications-required equipment, expanded controlled airspace and economic factors will be included in the Forum which will be moderated by Robert Mook, Chairman, Aerospace Science Department, Metro State College.

All interested general aviation people and/or organizations are invited to attend. The Colorado Chapter of 99s Inc. is the facilitating organization. Further information may be obtained from LU PURDY at 741-4935 or CAROL LEYNER at 442-5002.

CPA SURVEY REPORT

Recall the questionnaire survey forwarded last October as an enclosure with information regarding the annual meeting? The return rate was relatively low, only 13%. But the responses nevertheless provided valuable insight to member views on CPA activities. They are worth sharing.

1. SCHEDULE FOR REGULAR MEETINGS. Most responses favored monthly meetings; however, about one fourth felt that a frequency of bi-monthly or quarterly was adequate.

2. DINNER MEETINGS. A surprising 15% said they would attend monthly meetings. Most support a frequency of 3-4 times a year. Current frequency includes an annual Christmas dinner meeting and a dinner meeting connected with our annual meeting in October.

3. FLY-IN ACTIVITIES. Responses indicate a wide range of interests and very little consensus. Some suggestions/comments:

- * Cities such as Wichita and similar locations with tours of aircraft factories or special aviation-related facilities.

- * Some new areas such as the Custer Battlefield in Montana and the Western Museum in Cody.

- * Taos, Santa Fe, Angel Fire.

- * I have a 210 so I prefer places with long runways. I also like to camp out by my plane and like air museums.

- * Locations that can offer a luncheon/brunch outing.

- * More fly-ins to Colorado Plains airports--where low powered aircraft can fly.

- * Pagosa Springs weekend.

- * Whatever gets a good turnout.

4. CPA FLIGHT LINES. Responses were very complimentary of current format and content. Some interest was expressed for increased use of pictures, recognition of new members, feature additional members. A nice comment by one member (which probably characterizes many): "Very good job all around--would like to contribute but I am a procrastinator."

5. SAFETY SEMINARS/CLINICS. There was occasional interest expressed for additional CPA involvement in safety related activities. But a large majority were satisfied with our current level of at least two safety clinics a year and the annual seminar shared with Alpha Eta Rho at Metro State College. Mountain flying courses are of interest to several members. There was also a suggestion for added short programs that are topical in nature, i.e. weather reporting, FSS updates, ATC, regulation changes, airport updates. (This latter suggestion is ideally suited for emphasis in the newsletter and regular meetings.) There was also interest in seminars directed towards aircraft maintenance.

6. UNITED STATES PILOTS ASSN. fly-in events were of interest to about half of the respondents. One respondent indicated an interest but no available aircraft. Should be an easy type of

problem to resolve for fly-in events and one the CPA board can address.

7. AVIATION EDUCATION. There was strong support for increased involvement. Suggestions ranged from speakers bureau, working with schools and scout groups, flight school improvement. One respondent noted that even "old" pilots need updating. But several members also felt that they didn't see a role for CPA in aviation education.

8. STATE AERONAUTICS OFFICE. Support for this ran about 3 to 1 over those who were opposed. Those who were against such an office were, in general, very adamant in their position. At least one fourth of responses stated there wasn't enough information available to enable an intelligent response. [There will be an article on this issue in the February FLIGHT LINES.]

9. OTHER SUGGESTIONS included:

- * Too few people making decisions and not enough effort to involve new members.

- * Many fly-ins too exclusive.

- * Need for more activities to tell GA story to general public. If we don't we will be squeezed out of the airspace.

- * Appeal for activities which include pilots who do not own aircraft.

- * Gaining and retaining membership should be No. 1 goal.

- * Maintain relationship with AOPA. Use their experience, expertise, dedication and political influence to our advantage in general aviation matters in Colorado.

- * Increased attention to programs of interest to members.

- * Rethink the annual air classic because of temptation to dangerously stretch pilot limits.

- * More public awareness activity in support of GA.

- * Develop CPA position--by democratic vote--on major issues facing aviation. If appropriate, establish a policy committee to develop recommended positions for membership approval.

- * CPA has potential for much greater role in aviation education and safety and ability to gain public confidence and support through our activities.

Well, those are the highlights. There is a lot of food for thought. The information will be used in planning future CPA activities. And it will influence both the goals and objectives of the organization.



■ The Fly Mart ■

FOR SALE

1959 Cessna 175, Low Airframe Time, TTE 800, Full IFR, May Annual, N7173M Based at Jeffco. Bought Another Airplane. Scott Hamilton 466-7315.

Editor:

I wish to pass along a recent experience which may be of value to others.

On a whim, I bought one of those inexpensive carbon monoxide detectors and stuck in it my T210J. These have a pink dot which changes to a brown or black color in the presence of carbon monoxide.

I went out to do a few touch and goes and promptly forgot about the detector. After five or six practice landings and takeoffs, I taxied back to park. Along the way, the detector caught my eye. It was completely black!

An investigation revealed a loose exhaust pipe connection to the number one cylinder with about a 1/16th inch gap. Further examination showed that two of the four exhaust studs were missing. Of the remaining two, one had been stripped and the nut spun freely in place; the other snapped off easily when a wrench was applied.

The mechanics at West Aire, COS, went through the entire exhaust system and found a few more missing studs. Repair was made by drilling out the broken studs and installing Helicoils and new studs.

Aside from the obvious carbon monoxide danger, there is a serious fire hazard with this situation. I don't know how long that exhaust pipe would have stayed on before the intense heat would have finished corroding the two remaining studs away. I shudder to contemplate the results of a completely opened exhaust port in flight.

I obviously recommend the CO detectors be installed in every plane at least a couple times a year. They are only good for 30 days but I doubt that most of us will bother to make them a monthly ritual.

The heater was not being used at the time this occurred--examination of the heat exchanger revealed no problems there. The CO was entering the cockpit through various cable and wire penetrations of the firewall.

On a "sort of related" item, the manifold pressure produced by the Cont TS10 520 H had been falling off for the last 15 hours or so and had gotten to where the aircraft was "normally aspirated" performance-wise.

Upon discovery of the loose exhaust components I felt the culprit had been found. Not so. This turned out to be a sticking wastegate, which was easily remedied.

So I'm back up to speed and altitude, breathing fresh air, and not so much poorer as I had begun to fear.

On a different subject, I wish to commend Mick Wilson, Vern Foster, Larry Bartlett, and their energetic wives, for their tireless efforts to make the "Wings" program at Pagosa Springs in September a success and pleasure. Also, a tip of the hat to the beleaguered flight instructors who must instruct for several hours daily in all kinds of aircraft with students of all experience levels. They have a tough job and do it so well.

Wayne D. Lindholm
Woodland Park, CO

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Colorado Pilots Association
P.O. Box 38555
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