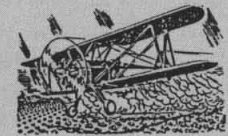


NORTH DAKOTA AVIATION QUARTERLY



Issue #14

NDAC

January, 1991

HAPPY NEW YEAR

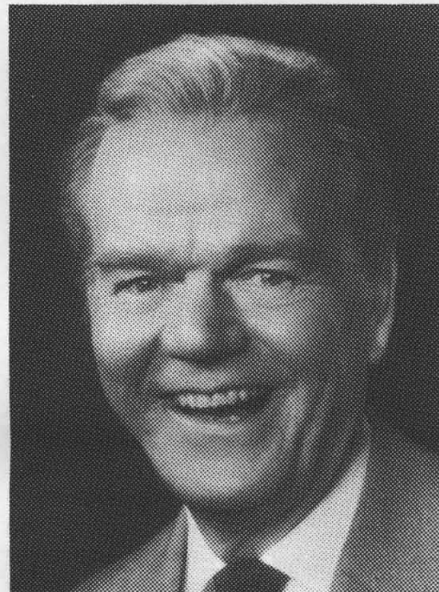
*Bob Simmers, Chairman
North Dakota Aviation Council*

I find myself in a rush to get this article out on time or at least a timely manner. Today is the last day of the year and I want to wish each and everyone of you a **Happy Holiday** and the best for the year to come. For your Council it has been a busy year. We had an extremely successful symposium and are busy working on the format for another successful outing in the spring. The addition of **Paul Harvey** to the agenda is a large job and we hope that it will be a benefit to all who attend. Part of the rush involves the sale of Paul Harvey tickets. We need to have these tickets sold by January 31st. At this point the sales are quite sluggish. Your timely support would be greatly appreciated. Once again, order your tickets by sending your check or money order in the enclosed envelope to:

**BIS/MAN CONVENTION AND
VISITORS BUREAU**

**NDAC ACCOUNT
P.O. BOX 2274**

BISMARCK, ND 58502



Once again our symposium seems to be falling together. We continue to find new things to offer the aviator. This year promises to be no different. We are working on a pilot refresher course that should be of interest to the general aviator. The

ag recertification course will continue to be offered as well as the mechanics renewal. There will also be something for the ladies. The FAA will be on hand to offer their views and to bring us up to date as to what is new and what is in the wings. At this writing the inquiries are coming in and that promises to fill our exhibit area.

Monday will be the opener with an open invitation to spend the evening with your legislators. Tuesday will be full of classes and will conclude with the Paul Harvey presentation. Wednesday will be classes followed by the annual awards and recognition banquet.

Registration fees will be the same as last year with an additional amount for the Paul Harvey presentation. We will not be publishing a schedule in this quarterly as they seem to become obsolete by the time convention rolls around. Instead, we will have the printed program for you when you register.

This year the convention promises once again to be the aviation event of the year in North Dakota. **DON'T MISS IT.**

**PLAN TO ATTEND AWARDS AND
RECOGNITION BANQUET ON
WEDNESDAY EVENING, MARCH 6,
1991. YOU WILL BE ENTERTAINED
BY COWBOY POET, BILL LOWMAN,
OF SENTINEL BUTTE, ND. AWARDS
AND DOOR PRIZE DRAWINGS WILL
BE PRESENTED WHILE YOU ENJOY
A MEAL - ALL FOR THE PRICE OF
\$10.00. SEE YOU AT THE BANQUET.**

**ROGER PFEIFFER
Banquet Coordinator**

NDAAA Headlines Leland Snow At Convention

An aircraft designer and builder, Leland Snow, Air Tractor, Inc. of Olney, Texas will address convention attendees Wednesday, March 6, 1991 at the Upper Midwest Aviation Symposium. An aeronautical engineer, Mr. Snow started the Snow Aeronautical Company in May of 1951 and designed and manufactured the S-1, S-2A, S-2B, S-2C and S-2D, the later powered by a 600



h.p. radial. Rockwell Standard Corporation (later Rockwell International) purchased the Snow Aeronautical Company in 1965. Snow became general manager of Rockwell's Olney Division in 1966 and engineered the S2-R, an ag aircraft tailored for the rice industry equipped with flags, a 400 gallon fiberglass hopper, with redesigned landing gear which utilized the S-2D tail and fuselage. Production of the S2-R began in 1968 and it went on to become the most successful airplane in Rockwell's Aircraft Division. When Rockwell closed there Olney Division in 1970, Snow resigned and began design on the Air Tractor AT-300 powered by a P & W R985 450 h.p. radial. Shortly after the sale of the first AT-300 in March of

Cont. On Next Pg.

North Dakota Flying Farmers

Jim McLeish, NDFF

Saturday, Dec. 1, we hosted the ND Flying Farmers Christmas party and pot luck dinner at our farm at Braddock. Eight aircraft flew in with the perfect weather. In attendance were Mr. and Mrs. Ralf Jensen, from Reynolds, Stu Bohn from Lark, Bill Grieve from Buffalo, Mr. and Mrs. Rodger Kinnischtzke and daughter, Kylene from Glen Ullin, Mr. and Mrs. Bob Simmers and sons Jon and Josh, Mr. and Mrs. Rodger Pfeiffer from Bismarck, Mr. and Mrs. Bill Stramer, Mr. and Mrs. Tom Voller and children, Laura and Eric, from Hazelton, Terry Preszler and sons, Joel and Justin from Braddock, Mr. and Mrs. Kent Swenson and Mr. Rick Swenson from Belfield, Mr. and Mrs. Don Zimbleman from Fullerton, and Mr. and Mrs. Arnie Widmer from Oakes. Almost in attendance were Mr. and Mrs. Larry Dahl and family from Cogswell but lan-

ding gear problems forced them to land in Oakes with a gear uplanding. We were glad to hear that there were no problems and minimal damage to the aircraft if you can call any damage minimal these days.

A short business meeting was held with a discussion on the dates for the 1991 State Flying Farmers Convention. We are tentatively set for the second week in September in Fargo. We are looking at matching our first day with the last day of Big Iron. More on that later.

A discussion on the Paul Harvey show and the Alaska group trip was held. Then the meeting adjourned for more eating and visiting.

We are gathering some new members which is great, as we need new people in all the organizations that make up the ND Aviation Council.

Our flying is at a minimum time of year, with the weather forcing me to cancel a couple of good flights to Missouri. Hope you all had a good holiday season and may 1991 be the best year yet.

Calendar of Events

- Jan. 17** ND 99's Meeting/
Christmas Party
Sheraton Riverside
Minot, ND
12:00 Noon CST
- Feb. 16** ND 99's Meeting
Mandan Airport
Mandan, ND
11:00 a.m. CST
- Feb. 20-24** US Pilots Assoc.
Winter Meeting
Royal Lahaina Resort
Maui, HI
Contact: Kathy Kingston
(913) 469-0003
- Mar. 4, 5, 6** Upper Midwest
Aviation Symposium
Radisson Inn, Bismarck
- Mar. 5** Paul Harvey
Bismarck Civic Center
- May 24-27** US Pilots Assoc.
10th Anniversary Annual
Meeting & Fly-In
Hampton Inn
St. Louis, MO
Contact: Manfred Kuehnel
(314) 544-4000



ND 99's NEWS

Norma Hellman, Secretary
ND 99's

The November meeting of the 99's was held in Jamestown, ND with 9 members flying in for the luncheon at hostess Linda Allen's. The main business discussed was the planning of the upcoming Sectional meeting to be held in Bozeman, MT in August, 1991, in conjunction with the Montana and Wyoming Chapters as co-hostesses. These three chapters will entertain chapters from Alaska, Washington, Oregon, and Idaho. Also discussed was the award we received at the NIFA competition in October that was held at the University of North Dakota. The highlight of the meeting was Linda's husband Ray giving us a tour of his workshop where he is constructing a beautiful Glassair.

The next meeting of the ND 99's will be our Christmas party in Minot, ND, the weekend of January 17, 1991, at the Sheraton Riverside. All women pilots are invited to attend. Festivities will begin with a luncheon at 12 noon, CST, followed by afternoon meetings and an evening banquet. Women are encouraged to bring their 49½'s (alias men.)

The February meeting will be held at the Mandan Airport at 11 a.m. CST on 16 February, 1991. The March meeting will be at the Upper Midwest Aviation Symposium in Bismarck.

Spouses Program Preventing Burnout

Elaine Stramer, NDFF



Join other spouses at this program designed specifically for you. Learn the signs of Burnout. Learn ways to prevent burnout. Have fun and learn how having too many jobs with too little time is not unusual. You can be happy and healthy, even if you don't have time to shave both legs on the same day. After all, the life you save may be your own.

Our program leader is Dr. Penny Rafferty Hamilton, a volunteer with the Central Regional office of the Airport Owners and Pilots Association (AOPA). She will address the spouses on March 5th at 10:00 a.m. until Noon.

Dr. Hamilton is a syndicated newspaper columnist, radio talk show host, and national seminar leader. She is a graduate of Temple University, Columbia College and the University of Nebraska. Her post-doctoral work was performed at the Menninger Foundation.

NDAAA (Cont. From Front Page)

1974 followed the development of the AT-301 powered by a 600 h.p. engine and the AT-302, a turboprop. At Air Tractor, Inc., Leland Snow continued to design and build aircraft including the AT-400 in 1979, the AT-503 in 1986 and the AT-802 in 1990, an 800 gallon air tanker with a computer controlled fire gate. He strives to provide customers with a safe, efficient, trouble-free product.



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Editor/Publisher: Greg Haug

Phone (701) 222-6502
P.O. Box 991
Bismarck, ND 58502

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From The

Director's Chair



Gary R. Ness, Director
N.D. Aeronautics Commission

The Symposium is just around the snow bank and the yearly gathering of friends and neighbors will be, as always, the high point of the year.

The Council has scheduled the second annual "Career Day" for the state's junior and senior high school students. All high schools will be notified as to the date and time. If you have an opportunity, remind your superintendent or principal that 311 students and 39 instructors from 47 communities attended last year. Remember Tuesday, March 5th, at 1:30 p.m. for this year's program.

The program will feature Captain "Mimi" Tompkins of Aloha Airlines, Honolulu, Hawaii. As we all know, Captain Tompkins was the copilot of the 737 that lost its roof enroute and with excellent crew management made a safe arrival at their alternate. Captain Tompkins will address the high school students on her chosen career field.

John Odegard, Dean of the UND Center for Aerospace Science, will address the students on the future and how they fit into an exciting adventure into technology.

This year's gathering will take place during the legislative session and will give all the opportunity to share an evening of fellowship with the legislators at the pizza night, Monday, March 4th.

Referring to the legislative activity gives me the chance to tell all that if you have a question or need information regarding the process, please feel free to call and ask the Commission staff for help. If we can't provide the answer, we will find out who has the answer.

No Symposium Schedule?

Don't be alarmed when you can't find a tentative schedule of symposium events in this issue of the Quarterly. Too many changes come in before the final schedule is printed, thus making it obsolete by the time we all get to Bismarck. If you desire additional information about programs offered, contact a representative from the sponsoring organization.

AVIATION NEWS BRIEFS

Mark J. Hozler, Planner
N.D. Aeronautics Commission

NEW AIRLINE ANNOUNCEMENTS

Dakota Sky inaugurated service January 9th between Grand Forks and Bismarck on a 3-day per week basis.

Great Western announced plans for a Fargo-Bismarck-Minot flight starting mid-February.

Great Lakes Aviation replaced Mesaba Airlines in early January in the Devils Lake, Jamestown-Minneapolis route.

AIRLINE PASSENGER STATISTICS

Passenger boardings were down 3.6% in 1990 versus 1989 at the seven scheduled service airports. Only Fargo, Minot & Devils Lake maintained increases in 1990.

AIRCRAFT PLANT

The Fargo Municipal Airport Authority approved a loan to a Florida firm for an aircraft manufacturing plant. Aircraft shall be two or four seaters which can be used for training or general flight. Some 35 jobs are potentially possible.

STATE REGISTRATIONS

The 1991 Aircraft registration forms were sent to owners on January 2nd from the Aeronautics Commission. If you haven't received a form, contact 224-2748 (Alice). Pilot registration forms were also mailed based on "month of birth" expiring in January, 1991. These certificates will be valid for 4 years, (2 years for Students).



"ON THE LIGHTER SIDE"



I am a flight instructor, and one of my students was having great trouble landing the aircraft. He could not judge how close to the ground he should be before getting the plane's nose up.

Strangely enough, during our first night-time lesson he did an excellent job. On each approach, just when I thought I was going to have to take over, he would pull back on the stick and make a beautiful landing.

I asked him what visual reference he was using, since there were few clues in the dark. He told me that he just aimed straight for the end-of-the-runway lights. Then he waited until I stiffened in my seat, whereupon he'd pull back and land.

—Contributed by A. Paul Bell

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CUT



PAUL HARVEY

THE EVENING OF MARCH 5, 1991

BISMARCK CIVIC CENTER



TICKET ORDER FORM

Please send _____ tickets at \$15.00 each.

_____ Total Amount Enclosed
CHECK OR MONEY ORDER ONLY

Mail Tickets To: (Please print or type)

Name _____

Address _____

City _____ State _____ Zip _____

Phone _____

TICKETS WILL BE \$17.50 AT THE DOOR.

CUT



Dakota Aero Tech/NDSU

NDSU and DAT Inc. have entered into a co-op aviation program. Now an individual may receive a BS degree in AMET (Aero Manufacturing Engineering Technology), and also their Airframe and Powerplant Certificate in 4 years.

The Junior year would be spent at Dakota Aero Tech and the other three at NDSU. The Airframe and Powerplant certificate will entitle the individual to 55 credit hours in the AMET Program.

Dakota Aero has grown in the last year with enrollments now at 190 students. The school occupies 37,000 square feet of space located in 4 buildings on Hector Air-

port in Fargo. They employ 21 people and have 2 additional buildings being planned, 1 is to be built in 1991 and the other in 1992/1993. We welcome you to tour the facility anytime.



GO NORTH TO ALASKA

In the last issue of the Quarterly we ran an article asking anyone interested in flying to Alaska to contact Russ Miller in Carrington. There seems to be enough interest, but those people who are interested need to contact Mr. Miller at:

Russ Miller
980 N. 3rd St.
Carrington, ND 58421
Phone:
701-652-2321 evenings
701-652-2739 days

If you are low and slow, please contact Russ.

WHO ARE WE? NORTH DAKOTA AVIATION COUNCIL

If you've ever wondered what all the initials mean when you look at the alphabet groups that make up the North Dakota Aviation Council (NDAC), here is the information you've been waiting for.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

Organizations Making Up NDAC

• **NDPAMA** •

North Dakota
Professional Aviation Mechanics

• **NDAA** •

North Dakota Aviation Association

• **AAND** •

Airport Association of North Dakota

• **NDFF** •

North Dakota Flying Farmers

• **NDAAA** •

North Dakota
Agricultural Aviation Association

• **NDPA** •

North Dakota Pilot's Association

Affiliated Organizations Association with NDAC

North Dakota Aeronautics Commission

Aviation Quarterly Publicist

Lobbyist's Groups

NDPAMA

An organized group of aviation maintenance personnel that provides a forum for improving safety.

NDAA

A group of businesses providing aircraft services from a single base (public use airports) offering aircraft fuel, repairs, and aircraft charter services.

AAND

An organization of airport managers, airport authority boards, and airport city council representatives who together act as one voice for airport development. AAND's mission is to expand the knowledge of the state's citizens to better understand the airports role within the community.

NDFF

Flying Farmers are people from all walks of life who love flying. The activities include but are not limited to both international and domestic tours, flying contests for the young. NDFF also offers flight safety clinics, teen and junior programs, scholarships & award programs, legislative representation, annual conventions, even a magazine...something for everyone is what best describes the NDFF organization.

NDAAA

1. To encourage a better understanding and recognition for agricultural aviations contribution to society.
2. To promote a cooperative spirit with the industry and related organization.
3. To advance agricultural aviation through legislative initiatives, research and technical knowledge and to encourage ethnical standards for the benefit of mankind.

NDPA

"The Pilots Organization"

NDPA offers something for every pilot from a J3 Jock to a 767 captain. "Get involved with us."

• **Organizational**

- A. Local chapter membership
- B. Regional/State/National representation

• **Educational**

- A. Adults/Certified Pilots
- B. Educational curriculum for "the kids"—"our future"

• **Directional**

- A. Legislative representation
 1. Local
 2. State
 3. Federal

• **Aviation Promotion**

- A. To encourage and sponsor at all levels, the development of aviation through individual and organizational input and participation.

Join us today
we need your input

Associate Members Welcome



!!! ATTENTION ALL PILOTS !!!

Are You Due For An Annual/Biennial Flight Review?

Helen Walkinshaw, NDPA

If the answer is yes, then attend the Upper Midwest Aviation Symposium on March 4, 5 & 6 when the North Dakota Pilot's Association (NDPA) will be sponsoring a Flight Review Clinic to help you meet the requirements of FAR 61.56.

FAR 61.56 requires a pilot to satisfactorily accomplish a Flight Review with an appropriately rated instructor before acting as Pilot-in-Command (PIC) of an aircraft. This flight review MUST consist of a review of the current general operating rules of FAR Part 91 and a flight review of those maneuvers and procedures which are necessary for the pilot to demonstrate the safe exercise of the privileges of the pilot certificate. For a pilot with more than 400 hours of flight time logged or an instrument rating, this flight review is required every 24 calendar months. For a non-instrument-rated private pilot with fewer than 400 hours of flight time logged and the recreational pilot with fewer than 400 hours logged, the flight review is required every 12 calendar months. In addition, the annual review must include 1 hour of flight instruction and 1 hour of ground instruction.

On Monday afternoon, March 4, NDPA will have qualified instructors conduct a class that meets the ground instruction requirements of the Flight Review. Upon completion, pilots will receive an endorsement or certificate showing completion of this portion of the requirements. There will also be Flight Instructors from across the state available throughout the week of the Symposium to complete the flight review portion with you.

If you want to complete the flight portion, using your own airplane or that of an instructor's, please RSVP by February 22. Your RSVP is important for

both scheduling and coordinating flight instructors and airplanes.

RSVP to: Helen Walkinshaw, 915, 9th St. S., #1, Fargo, ND 58103, (701) 239-4898.

AVIATION GROUND SCHOOLS RETURNING TO ND

Aviation Ground Schools out of Spokane, Washington, will be returning to North Dakota with their nationally acclaimed "2 DAY ACCELERATED GROUND SCHOOL". The courses offered will include Private, Commercial, Instrument, Instructor, and Instrument Instructor.

Each class is a fast-paced and fact-filled presentation using FAA & FOI proven techniques. The ground schools provide you an opportunity to pass the FAA written exam in one weekend. The classes run from 9:00 a.m. to 6:00 p.m. on Saturday & Sunday, and the FAA Test (small fee) will be administered Monday.

Aviation Ground Schools will be in Fargo, ND, February 2nd & 3rd, at the Town House, 301 3rd Ave. North. They will also be at the Doublewood Inn, 1400 E. Interchange, Bismarck, ND, on March 2nd & 3rd. Registration for both sessions will be between 7:30-8:00 A.M. Saturday in the designated hotels.

For further information or to enroll for a course call Aviation Ground Schools 1-800-448-8788.

If attending the course in Bismarck, plan to stay and attend the Upper Midwest Aviation Symposium March 4-6 at the Radisson Inn, Bismarck.

FLIGHT INSTRUCTORS NEEDED

During the Upper Midwest Aviation

Symposium, March 4-6, 1991, the North Dakota Pilot's Association (NDPA) will be offering a Flight Review Clinic as a service to pilots across the region, and we need YOU!

The Flight Review Clinic will include a classroom session, the afternoon of Monday, March 4, which will meet the ground instruction requirements of FAR 61.56. After completing the ground school, NDPA would like to provide the opportunity for pilots to complete the flight portion of the review while in Bismarck attending the Symposium. That's where you come in.

We need flight instructors who will make themselves available during the week to conduct the flight portion of the Annual/Biennial Reviews. This is a service to both CFI's and pilots. We'll provide the pilots needing Flight Reviews for the instructors, and instructors to the pilots.

Based on the need and success of this year's program, NDPA would like to make the Flight Review Clinic an annual event at the Symposium.

If you are interested in conducting the flight reviews or if you have an airplane available to rent, please contact: Helen Walkinshaw, 915 9th St. S., #1, Fargo, ND 58103, (701) 239-4898, by February 18 so the details and scheduling can be coordinated.

As a sideline, if you are not already a member of NDPA, this is your opportunity. NDPA needs active pilots across the state to become involved with the organization so it can continue to grow and develop. A goal of NDPA is to offer services and programs for the aviation community, as well as protecting the interests of aviation.

JOB FAIR

March 4, 5, & 6, 1991

We again welcome the various Airlines and Schools to partake in providing employment and Training opportunities for various Aviation Careers. Eleven Airlines and Overhaul facilities have been invited besides eight educational facilities.

If looking for employment as a mechanic, pilot, ticket agent, reservationist, etc. bring your resume along and visit with these companies.!

THE CENTENNIAL FLIGHT OF THE WACO GXE

Don Larson, Chairman
Dakota Territory Air Museum

After the Centennial Flight was completed in September, 1989, we had numerous calls and other inquiries from citizens around the state. They inquired as to whether or not their community would be getting one of the framed sets. Our response was that if they as individuals did not want to purchase them, they should contact the airport manager, the Airport Authority Board or businesses in the community.

It appears now that there is at least one set in about half of the communities. There

are several communities that have four or five sets. Our goal is to get at least one set in each of the 100 communities that were involved in the flight. We would encourage those of you involved in aviation to get a group of businesses together or a combination of businesses, service clubs, along with the airport authority and raise funds to purchase a set for your community.

The cost of a framed set is \$350.00 delivered and can be ordered by writing:

Cachet Sets
Dakota Territory Air Museum
P.O. Box 195
Minot, ND 58702

or call Don Larson at 852-3116 days or 838-7471 evenings.

WHO IS A SENIOR CITIZEN?

Courtesy of North Dakota Flying Farmers Newsletter

A Senior Citizen is one who was there before the population explosion. We were here before television, penicillin, polio shots, antibiotics and frisbees. Before frozen food, nylon, dacron, Zerox, radar, Fluorescent lights, credit cards and ball point pens.

For us time sharing meant togetherness, not computers. A chip meant a piece of wood, Hardware meant Hard Wear and software wasn't even a word.

Coeds never wore slacks. We were before pantyhose and drip-dry clothes. Before ice makers and dish washers, clothes dryers, freezers and electric blankets, before Hawaii and Alaska became states, before men wore long

hair and earrings and women wore Tuxedos.

We were before Leonard Bernstein, yogurt, Ann Landers, plastic, the 40-hour week and the minimum wage. We got married first, and then lived together. Closets were for clothes not for coming out of, bunnies were small rabbits and Rabbits were not Volkswagons.

We were before Grandma Moses and Frank Sinatra. Girls wore Peter Pan collars and thought cleavage was something butchers did. We were before Batman, Snoopy and Rudolph the red-nosed reindeer. Before DDT, vitamin pill, disposable diaper, Jeeps, Pizza, Cheerios, Fruit Loops, instant coffee and decaffeinated anything, and McDonalds

were all unheard of.

We thought fast food was what you ate during Lent. We were before Boy George, J.K. Salinger and Chiquita Banana. Before FM radios, tape recorders, electronic music and disco-dancing and THAT'S NOT ALL BAD.

In our day men did the smoking and grass was for mowing. Coke was a refreshing drink and pot was something you cooked in. If we had been asked to explain CIA, MS, NATO, UFO, JED, ERA, or IUD, we'd have said alphabet soup.

We are today's Senior Citizens, a hard bunch when you think of how our world has changed and of the adjustments WE have had to make.

UPPER MIDWEST AVIATION SYMPOSIUM — MARCH 4, 5, 6, 1991

Radisson Inn — Bismarck, ND

PREREGISTRATION FORM

(Please print or type)

Name of Participant _____ Phone _____
(to be printed on name tag and enclose your business card)

Address _____ City _____ State _____ Zip _____
(you must join or be a current member of at least one organization and must register for the symposium)

***PRE-REGISTRATION FEE**

		TOTAL
Member	_____ person(s) @ \$35.00	_____
Spouse	_____ @ \$15.00	_____
Awards Banquet	_____ person(s) @ \$10.00	_____

ORGANIZATIONAL DUES

Airport Association of North Dakota (AAND)	_____	\$25.00	_____
Association Membership	<small>(Airport)</small>	\$25.00	_____
North Dakota Agricultural Aviation Association (NDAAA)	<small>(Firm/Business)</small>	\$25.00	_____
Associate Membership	_____ person(s) @ \$10.00		_____
North Dakota Aviation Association (NDAA)	_____ person(s) @ \$25.00		_____
Associate Membership	_____ person(s) @ \$10.00		_____
North Dakota Flying Farmers (NDFF)	_____ person(s) @ \$50.00		_____
North Dakota Pilots Association (NDPA)	_____ person(s) @ \$19.00		_____
North Dakota Professional Aviation Mechanics Association (NDPAMA)	_____ person(s) @ \$15.00		_____

TOTAL SUBMITTED **GRAND TOTAL \$** _____

*Registration fee includes: Admission to Symposium, Exhibit Area, Speakers, Legislative Night, and Coffee Breaks.
 Registration after Feb. 22nd is \$40.00.

MAIL TO: DAVID HENDRICKSON, BOX 6200, BISMARCK, ND 58506.

DO NOT MAIL PREREGISTRATION FORM AFTER FEBRUARY 22, 1991

Flight Physiology Training...The Human Factor

Rick Mercil, President, ND Pilots Association

Nothing is more critical to air safety than a skilled flight crew. Nothing, not even the aircraft. Recent transportation statistics show that pilot error accounts for as much as 70 percent of all fatal aircraft accidents. Which is why the role of human factors in aviation has become a high priority for industry officials worldwide.

Flight physiology training is a critical element in the human factors equation. For good reason. Consider how safety is enhanced when pilots are trained to understand the physiological and psychological hazards of flight. To respond quickly and accurately to extremes of high altitude. To optimize crew performance under hostile flight conditions.

The military has required flight physiology training for over three decades. But how many of today's new airline hires are ex-military pilots? Very few. The percentage has declined rapidly this past decade. The result: a growing number of new pilot hires without aerospace physiology training. Without "flight" experience in a high altitude chamber.

What if a gradual loss of pressurization occurs? Will your pilots recognize the often subtle symptoms of hypoxia in time to take corrective action? Will your flight attendants know how to respond to the needs of their passengers? Will they know when human factors, such as fatigue and stress, might be jeopardizing flight deck performance? Especially these days... when aging airfleets are increasing the risk of an in-flight emergency. No one likes to think about it, but it does happen.

The NDPA is bringing to the pilots of North Dakota an opportunity to take advantage of the expertise of some of the most qualified flight physiologists in the nation. During the Upper Midwest Aviation Symposium a workshop will be sponsored by the NDPA on the topic of flight physiology. Course topics will include: **The Atmosphere and the Body** — atmospheric changes and how the body's respiratory and circulatory systems are affected*

Hypoxia — types, causes, symptoms, treatment and prevention*

Hyperventilation — causes, symptoms and treatment*

Trapped Gas Disorders — how to recognize trapped gas disorders and treat them*

Evolved Gas Problems (decompression sickness) — causes, symptoms, treatment and prevention

Oxygen Equipment — how to use oxygen systems available on most aircraft*

Acceleration — effects on body

Cabin Pressurization — pressurization

systems and recognition/response to sudden loss of cabin pressure*

Smoke and Toxic Fumes - hazards and emergency procedures

Human Factors — variety of factors that can affect performance and ability to withstand stresses of flight environment

Fatigue — effects on performance and causes/prevention in modern aviation

Vision — visual illusions that can occur during flight and how to cope with them

Spatial Disorientation — why this occurs and how to prevent it from becoming a problem

Survival — techniques to use for variety of emergencies with a focus on post-crash strategies

With safety as an emphasis the NDPA hopes you put this exciting workshop on your symposium agenda.

ELT's Can Cry Wolf

Catherine M. Breu
Director of Public Affairs
N.D. Wing - CAP

Winter is here at last and for many pilots it means long distance stretches between flights, but for the Civil Air Patrol, it is often our busy season. This is the time of year when we have the highest incidence of searches involving ELT (Emergency Locator Transmitter) signals. Fortunately, almost 97% prove to be false alarms — transmitters inadvertently set off due to old age, cold temperatures, rough handling, or a not-so-great landing. Many hours and great expense can be saved by learning how the alerting system works and different ways you can decrease the chances of being informed in the wee hours of the morning that your aircraft's ELT has been crying "Wolf!"

An Emergency Locator Transmitter broadcasts a wailing signal (similar to an ambulance) on a radio frequency of 121.5 MHz. Its purpose is to allow searchers to home in on the ELT's signal in the event the aircraft has to make a forced landing and is activated by a sharp blow or impact. It resembles a walkie-talkie and is usually mounted in the tail of the aircraft. The signal is received on any radio tuned to that frequency and several satellites orbiting the Earth. Due to the high incidence of false alarms, often precious time is spent trying to verify the nature of the distress signal. By the time, searchers are airborne, it may be several hours later.

Here are several ways you can help the Civil Air Patrol in reducing the false alarms and save yourself any repercussions with authorities.

Care Of Metal Propellers

Joseph F. Souza
Aviation Safety Inspector
Fargo FAA/FSDO

It seems that the care of metal propellers is overlooked by many aircraft owners and mechanics. We seem to feel that as long as the leading edge of the blades are free of large nicks and dings, and that the face of the blades are painted, that everything is okay.

The problem is that any nick or ding that is on the leading edge or face of the propeller is a potential hazard. Any type of damage to the propeller should be properly cared for immediately.

A recent investigation of an inflight separation of a propeller blade disclosed a small nick on the face of the blade that had been overlooked and painted over. This nick induced enough stress that 15'' of the blade separated in flight. Because the damage is on the face of the blade, it should not be overlooked and should be taken care of immediately. A list of Do's and Do Not's, taken from the October issue of the FAA General Aviation Airworthiness Alerts, is an ideal guideline for the care of a metal propeller. Taking that information seriously could save someone from experiencing an inflight separation, or even saving their lives.

- After each flight, briefly tune your radio to 121.5 to ensure that your aircraft's ELT (or any other on the airport) is not activated.
- Have your ELT checked frequently for its condition, security, and the age of the batteries. The date should appear on the transmitter when the batteries are due for replacement. Old batteries have a much greater intolerance of extreme temperature, activating the unit with little or no outside motion.
- If the ELT is removed for repair, the aircraft must have a placard displayed in the cockpit stating so. Disconnect and remove the batteries when shipping or putting the ELT into storage. Many activated ELTs have been tracked to closet shelves and even vehicles traveling on the highway.

Emergency Locator Transmitters can be the difference in surviving an aircraft wreck so the care of these units should be utmost in every pilot's preflight inspection. If you would like to learn more about ELTs and the techniques used to detect their location, you can contact any Civil Air Patrol squadron or CAP Headquarters at the Mandan Municipal Airport.

DIVIDE UP THE WORK!

Mark J. Holzer, Aviation Planner
ND Aeronautics Commission

Airport Authorities are 5 or 7 member boards, but too frequently only one or two members do the work. Generally the chairman carries the load.

To be truly effective and get greater involvement from each board member, establish "portfolios". An example of these "portfolio" assignments are:

1. **Federal and State Grants** - construction/maintenance
2. **Leases and Rentals** - tenants/farmland
3. **Airport Electrical** - lighting service/NAVAIDS
4. **Marketing and Promoting** - airport use for new businesses
5. **Education of Public** - airport role to city council, county commissioner, general taxpayer at service clubs, school system (Ambassador for the Airport)
6. Other current problems/concerns

Whatever your current situation is, the assignment of portfolios to the Airport Board members can be a great benefit. Both state and federal aviation groups can help with this task.

Finally, the chairman should delegate responsibility and insure airport operations run smoothly so he won't have to do it all by himself. Create some challenges for each member to be more enthusiastically involved and solicit airport tenants to help too.

New Rules For Airman Driving Offenses

John G. Vold, Aviation Safety Inspector, Fargo FAA/FSDO

An FAA rule designed to identify and ground pilots involved in alcohol or drug related motor vehicle offenses that result in convictions or administrative actions became effective on November 29, 1990. Under the rule, an application for a pilot certificate can be denied or an existing pilot certificate may be suspended or revoked if a person has two or more such convictions or administrative actions within a three-year period. Pilots must also provide the FAA written notification on each conviction or action within 60 days.

When airmen apply for their next medical certificate, a consent form must be signed which authorizes the National Driver Register (NDR), through the State Department of Motor Vehicles, to furnish the FAA information pertaining to their driving record. The authorization is mandatory. Failure to provide it will result in delay of further consideration or denial of an airman medical certificate. Airmen may request a copy of their NDR record to check its accuracy. A notarized request may be sent to DOT/NHTSA/NTS-24, 400 Seventh St. SW, Washington, DC 20590-0001 and must contain a complete name and date of birth to ensure positive identification.

Executive Air Taxi Corporation Opens New Facility

Executive Air Taxi Corporation of Bismarck recently completed their new addition to its operations facility at the Bismarck Airport. It provides space for pilot offices, classrooms, administrative offices, pilots lounge, reception area, weather briefs, and conference rooms. With its staircases, balconies, fireplace and planters, it creates a very relaxed and restful atmosphere. Also incorporated with the new facility is the addition of line and fuel service to EATC's already long list of FBO aviation services.

Mr. Dennis Rohlfs and his staff are looking forward to serving your aviation needs during this upcoming convention and invite you to tour their facility while in Bismarck. Part of the service to be offered during the convention will be complimentary rides from their facility to Convention Headquarters.

AAND NEWS

Erling Rolfson, President

Airport Association of North Dakota will have an exciting and interesting program at the annual convention. Our keynote speaker will be Fred Haeffner, Director of Economic Development, for the State of North Dakota. He recently retired from the United States Air Force with the rank of a three star general and is very concerned about the growth of aviation in North Dakota. The kind of person aviation needs in that position.

AAND has over 25 speakers that will be addressing many aspects of airport management. This will update you as managers of airports as to efficient and current methods in use today. Your time will be well spent and you will learn something valuable to take home with you. I think it is important that you attend. Poor planning in airport management can be costly.

From The North Dakota AFSS

Bob Fishman
FAA Air Traffic Manager

HAPPY NEW YEAR TO ALL. The Holiday season is over, and once again it is time to take that special gear out of the garage. Such things as coveralls, boots, fish house, ice auger, and fishing gear. There is nothing better than a North Dakota winter spent fishing.

On October 18th this past year a new service, commonly referred to as HIWAS (Hazardous In-flight Weather Advisory Service), was implemented. This service is being provided to all VHF equipped aircraft at or above 4000 feet AGL. On this broadcast you will hear information on SEVERE WEATHER FORECAST ALERTS/WATCHES, SIGMETS, CONVECTIVE SIGMETS, AIRMETS, AND SIGNIFICANT PILOT WEATHER REPORTS. HIWAS replaces the VOR Transcribed Weather Broadcast (TWEB).

HIWAS changes communication procedures over most VOR's in North Dakota. We will no longer use the voice capabilities of VOR'S for communication except in emergencies. The only exceptions are FAR, DVL, and ISN VOR'S where communication procedures will remain the same until additional remote communications outlets are installed at those locations.

One other item I would like to mention is Flight Plans. I want to encourage everyone to make use of this invaluable service. While out at the lake in winter I have often wondered "how long could I survive those sub-zero temperatures if I made a forced landing?" The information included in flight plans is vital in the event search and rescue is required. For your convenience weather briefings or updates are available when filing your flight plan. We would be happy to assist you in planning your flight if navigational, communication, aeronautical, weather or other information is needed.

If you have any concerns, questions or comments please feel free to contact me at (701) 772-7489. When in the Grand Forks area stop in and visit us.

North Dakota has a fine airport system. We need to keep our airports in excellent shape. It reflects on your community. Take the extra time to keep your airport in top shape because it is the front door to your community. See you at the convention in March.

N.D.P.A.M.A. UPDATE

Dwight Pladsen, Pres.

Greetings, as of this newsletter we have Mr. Bill Mangold of CHAMPION, Mr. John Lauler of SUPERIOR, and Mr. Rodger Fuchs of ADVANCED AIRCRAFT ACCESSORIES. If you're not familiar with Rodger he will be giving a talk on case welding and how to keep the Bart Simpson types out of your tool box. Be there for clarification.

The P.A.M.A. jacket with emblem, should be ready and will be available for viewing and orders at the P.A.M.A. booth, GOD willing and the creek don't rise.

On Dec. 29th I learned of a needless death of a 1975 Citabria. The owner's son was using a torch in a stove pipe to preheat the craft when he decided he should now also fuel it. Yes, the fuel tank was over-filled, the extra found that torch. That poor, new pvt. pilot caught it, Big Time. Kind of makes you want to know where he learned this preheat trick with the torch?

Now that I have a thought in your mind on Safety, it's time to fill out your entry form for the mechanic safety award. The contest will be judged as always by the P.A.M.A. board. With the first place being \$300.00, 2nd \$150.00, and third \$50.00 cash.

An entrant must be working in North Dakota as an active technician. He/she must hold a current FAA airframe and/or powerplant, repairman, instrument, or

avionics technician rating. He/she must be skilled in the methods, techniques and practices necessary for the performance of maintenance, inspection, or alteration of aircraft as a whole, or any of the major propellers, airframes, avionics and appliances.

Eligible technicians may enter themselves, coworkers, or a friend. PILOTS and AIRCRAFT OWNERS here is the place to put pen to paper. What better way to thank the person that went up under the panel to fix that Gyro, or fixed the clanking noise in the left engine. Fill it out with what you know, we can process the form with some lines vacant. All entries should be postmarked no later than Feb. 25th.

Careers In Aviation

Gordon W. Person, Past Chairman
ND Aviation Council

Is aviation on the move upwards as we hear bits and pieces from various reports? Yes, it is as I gathered some data that will reinforce that statement. The Airline Transport Association predicted last year that Aviation (Commercial) is going to grow four fold over the next 10 years. The Airline fleet today is approximately 4,000 Aircraft.

We have received information about the orders that have been placed and op-

tions on additional aircraft for the next 5-6 years. The list below are the companies and what has been ordered and the options they have.

Boeing Aircraft	773 ordered/ options on 838
McDonnell Douglas	307 ordered/ options on 449
Airbus	252 ordered/ options on 130
Fairchild	105 ordered/ options on 75

These are aircraft ordered for the USA operations and do not include those ordered by other countries. This will cause the total airline aircraft numbers to double within 6 years and no slow up is predicted as of this date.

Employment of mechanics, pilots and other associated Aviation Personnel will be needed. At the present time they predict a shortfall of skilled people needed to total 160,000 by year 2000.

The present maintenance work force is faced with about 32% of the employees eligible for retirement. Approximately 5200 new A&P's emerge a year at the present time, therefore the projections are very realistic. Schools that train in various aviation fields will need to grow and expand to meet their needs. Starting pay for graduates, people qualified by the military or OJT will range from \$21,000 to \$34,000 annual salary with the Heavy Aircraft Market. Yes, there is a career in Aviation Maintenance!

ENTRY FORM FOR NORTH DAKOTA AVIATION 1991 MECHANIC SAFETY AWARD PROGRAM

MAIL TO: DWIGHT PLADSEN, 2338 NW 3rd ST., SIDNEY, MONTANA 59270

INSTRUCTIONS: Use a separate form for each entry. All entries must be either typewritten or neatly hand lettered.

Name: _____ FAA Certificate No: _____
Address: _____ FCC License No: _____
Telephone No: _____

Employer: _____
Employer's Address: _____

Year first designated a Maintenance Technician: _____
Years experience: _____

ENTRY DETAILS: Give brief but factual description. Drawings, photographs or other presentations may be included to assist the judging committee. All entries become the property of the Selection Committee and will not be returned.

(If additional space is required, attach additional sheets)

ENTRY SUBMITTED BY: (if other than entrant)

Name: _____ Address: _____
Employed by: (Name and address) _____ Position Held: _____
Date: _____ Signature of person submitting entry: _____

FOR SELECTION COMMITTEE USE ONLY

NDAAA REPORT

Cynthia Schreiber-Beck

Legislative Scene

J.B. Lindquist will be contacting a number of NDAAA members to check their support of the M.E.A.L. Ticket. If you have questions or comments, please give him a call right away at (701) 567-2069. He is the NDAAA lobbyist and Lynn Larson (701) 232-6676 is the NDAAA Alternate Lobbyist.

A decision is necessary on whether to pursue changing the verified Report of Loss Law regarding the requirement of the operator to tell customers of the necessity to complete and file a Report of Loss before civil action can occur. The Aeronautics Commission devised a form to be utilized in order to satisfy records that notification was given and all registered operators received the form after the last legislative session. In short, why is it the responsibility of the ag operator to inform a customer of the reporting requirements? It is necessary for all operators to familiarize themselves with this law in Sections 4-35-21 and 4-35-21.1 of the North Dakota Century Code and then form an opinion.

The methods to comply with posting requirements are being reviewed. Perhaps there are some alternatives. Comments are welcomed and you will hear more if anything develops.

The bee-pesticide issue is likely to resurface in 1991. There is a need for ag operators to gain support from their customers.

ND Ag Show

The attendance appeared to be down at the ND Ag Show on Nov. 19 & 20 in Fargo and therefore the NDAAA booth received only a few visitors. A thank you to all members who assisted. Dr. Elizabeth Whelan, President of the American Council on Science & Health who spoke on food safety, highlighted the show. Comments she made included (paraphrased):

"We in the US have our health priorities inverted; there is a 100% mortality rate, we now die young at a very old age; there are no documented deaths of the proper use of agri-

chemicals; food scares go back to November of 1959 when cranberries took the ax, Gloria Swanson was the actress at that time; the general public fears that what they can't see or understand yet they would not allow the FDA to ban sweet and low in 1987 because they were familiar with saccharin and felt it had health benefits; we should be in the 'active mode' by promoting the truth that food is safe not the 'passive mode' by allowing the banning of approved chemicals; and maybe it is time to have public interest groups liable for the damages or losses caused by their wrong doings."

FYI: The Alar lawsuit on behalf of the apple industry naming CBS, the Natural Resources Defense Council and others, was filed on November 28, 1990, in Washington state. To assist with the fight, a fund was established to accept donations. Send \$25.00 to: Alar Lawsuit, Free Enterprise Press, 12500 N.E. 10th Place, Bellevue, WA 98005. A book entitled **Fear of Food** is sent out upon receiving the donation.

Fly Bys

*Kenneth S. Junkert, Groundwater Quality Specialist, ND Dept. of Ag, is in charge of the Development of a Pesticide Groundwater Management Plan with the assistance of Groundwater Quality Task Forces, organizations and individuals; NDAAA President Cameron Wischer is serving as the NDAAA representative/contact.

*Recently elected NAAA Offices are: President-Vernon Orr (IA), Vice-President-Ken Edmondson (CA), Secretary-David Kirk (OK), and Treasurer-Mike Lavoie (NER); the WNAANA 1991 Officers are: President-Barb Deck (ND), Vice-President-Dorothy Kimmel (MS), Secretary-Cynthia Schreiber-Beck (ND), Treasurer-Liz Erickson (PNW). They all are ready for action at the NAAA Board Meeting, February 22-24, 1991, in D.C.

*Envirecycle President Steve Zahos is

interested in speaking to the NDAAA at the symposium. Envirecycle, a Missouri based company, is recycling blow molded 1 and 2½ gallon triple-rinsed plastic jugs. The plastic containers are shredded at collection sites, trucked to a central location for further processing and eventually re-sold. Many states are utilizing this method instead of disposing empty agricultural chemical containers in landfills. If the NDAAA's intension is to pursue this, members need to express their interest, know approximately the number of triple-rinsed containers they generate, consider appropriate collection sites, etc. For those who are attending the symposium, have this information available. Those not attending are requested to express their thoughts to the NDAAA Secretary (701) 642-5777. (Refer to p. 38 in the December '90 issue of **Farm Chemicals** for further information.)

*The 30 minute documentary "The Aerial Applicator's Growing Role in the Production of Safe Food" is available from the NAAA, 1005 E. Street SE, Washington, D.C. 20003, for \$10.00 including postage and handling. Portions of this documentary were shown to Reno 4th grade students during school visits. It is suitable for use in upper elementary or high schools and is a valuable PR/Educational tool. A wise move for all operators is to donate a tape to each school in your area and show the documentary to every organization you can think of. Several ¾ inch tapes, which are utilized by TV stations, are available from the NAAA on a loan basis. The NDAAA is proud of their \$2,000 donation to assist with the development costs of the documentary.

*No news is good news! The NAAA is very optimistic that Part 137 operators will be exempted from the FAA Anti-drug Law. A delay in receiving an answer is due to the fact that Heidi Meyer, who was in charge of the FAA's re-evaluation of the law, (the impact on Part 137 Operators and the need for it), was called to active duty with Operation Desert Shield.

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