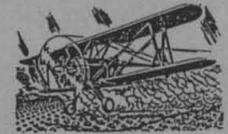


NORTH DAKOTA AVIATION QUARTERLY



Issue #5

NDAC

October, 1988

Operation Raincheck

*Greg Haug, Editor
North Dakota Aviation Quarterly*

I am pleased to announce that Operation Raincheck is again being offered to N.D. pilots in October, 1988.

Operation Raincheck is a course designed to familiarize pilots with Air Traffic Control, its benefits, responsibilities, functions, problems and relationship with all facets of aviation. Although the program is oriented to the instrument rated pilot, all pilots are encouraged to attend.

The course will be offered to the flying public according to the following schedule:

- October 17** Bismarck 7:00 p.m.
Heritage Center Auditorium
- October 18** Williston 7:00 p.m.
Servair Hangar
- October 19** Minot 7:00 p.m.
Trinity Hospital - Adult Education Room
- October 20** Grand Forks 7:00 p.m.
UND - Center for Aerospace Science
- October 21** Fargo 7:00 p.m.
NDSU - Stevens Auditorium

The agenda for each meeting will be:

1. Introduction
2. History of Operation Raincheck
3. Air Traffic Control Procedures (Center)
4. Air Traffic Control Procedures (Tower)
5. Automated Flight Service Procedures

If you have any questions regarding the course please contact:

Archie Whitaker
Operation Raincheck Coordinator
Minneapolis Air Route Traffic
Control Center
512 Division St.
Farmington, MN 55024
(612) 463-5154

LEGISLATIVE UPDATE

*Jack Daniels, Lobbyist
North Dakota Aviation Council*

The upcoming January 1989 session of the state legislature is surely going to be an interesting one. As your council lobbyist it behooves me to call your attention to some sensitive issues that are certain to hit the law makers.

Of those issues, the most impact on our industry will come in the form of attempts to raise more money in one form or another, from the aviation community. Another issue will be that of funding for

the Airport Block Grant Program for the states air carrier airports. This one can have a major impact on our secondary airport program.

Additionally we must be cautious about any attempts to raise aviation fuel taxes on a state as well as national level. The need for money in the coming biennium is going to put a lot of pressure on the legislators to look for new ways to tax the populace.

As always, when the legislature is in session, nothing is sacred and we must be very careful about what will be done "FOR" us.

Governor Addresses Fargo FAA Listening Session

*Mark Holzer, Aviation Planner
North Dakota Aeronautics Commission*

Some 150 attendees were present on September 29th at 7:00 p.m. at the FAA Great Lakes Regional Listening Session held in Fargo with Governor Sinner's opening remarks to the group. The Governor communicated references to the regulatory effects of Mode-C in the Fargo area, continued progress in aviation, Statewide Pavement Management Study and lighting project, Aviation Education partnership with FAA at University of N.D. and the economic importance aviation has in the state.

The FAA's Regional Director, Tim Forte, and his staff opened the session discussion for floor comments by attendees. The key issue was centered around the Mode-C implementation for both West Fargo and Fargo Hector Airport. Mr. Forte felt that West Fargo traffic pattern could be designed to co-exist outside the limitations of the planned Mode C impacts. Fargo airport, however, was named in the congressional mandated revised 88-2 order and that Mr. Forte will

re-evaluate the criteria with FAA Administrator McArtor to report back to the attendees on their position to implement this ruling by December 30, 1990.

Other questions were raised on the development of MLS and Automated Weather Systems for North Dakota. The regional staff also addressed the Loran-C approaches and the reorganization and streamlining of the FAA.

An exciting slide presentation on the futuristic outlook of aircraft and aviation was presented by Bill Shea, Chairman, UND Center for Aerospace Sciences. Gary Ness, Director of the North Dakota Aeronautics Commission, presented a brief summary of state projects that are creating enthusiasm through educating the public on the roles aviation plays as a \$460 million aviation contribution to the annual economy of the state.

The FAA's Regional office was challenged by the group to come up with some answers on the Mode-C ruling that would provide an economically sensible, but yet safe, scenario to issues presented. The session was a success in terms of allowing the state's aviation users the opportunity to reach out to discuss today's concerns so that the FAA can better implement their programs.



— — PAMA NEWSBRIEFS — —

Paul Smith, President NDPAMA

Changes In AAND Board

Ralph Henning, President AAND

With AAND President Jerry Olson leaving the state in June, some changes have taken place in the makeup of the AAND board. I was serving as Vice President, and have since taken over the role as President. Erling Rolfson, who previously served as District #3 representative, has assumed the duties as Vice President. Russ Miller from Carrington has become the District #3 representative.

A continuing high priority for AAND is obtaining resolutions supporting the North Dakota Airport Block Grant Program (ABGP). If you as an individual, local government entity, or community organization have not already sent in your resolution in support of ABGP, please do so as soon as possible.

AAND board member Erling Rolfson has been on a planning task force for the Beulah-Hazen Airport project. He has been serving with members of the North Dakota Aeronautics Commission and representatives from Beulah and Hazen.

Subjects which the AAND Board will be discussing at their coming meetings are the qualifications for the UND Scholarship program; the use of UND Airport Management students who would intern during the summer at various airports throughout the state; and convention agenda. If you have any ideas concerning the 1989 agenda which may be of interest and benefit to North Dakota airports, please contact any board member.

North Dakota Aviation Quarterly Official Monthly Publication Of The

North Dakota Aviation Council

Editor/Publisher: Greg Haug

Phone (701) 774-8594
P.O. Box 1306
Williston, ND 58801

North Dakota Aviation Council Board Members 88/89

Gordon Person	NDPAMA Chairman
Bob Simmers	NDAA Vice Chairman
Roger Pfeiffer	AER/COM Secretary
Paul Smith	NDPAMA Treasurer
Gary Baker	AAND
Ralph Henning	AAND
Dave Hendrickson	NDAA
John Lefforge	NDAAA
Cameron Wischer	NDAAA
Jim McLeish	NDFF
William Stramer	NDFF
John Bridewell	NDPA
Gerri Saylor	NDPA
Ed Zawistowski	NDPAMA
Gary Ness	AER/COM
Jack Daniels	Lobbyist

North Dakota Aviation Quarterly
Published Jan/Apr/July/Oct

Send Address Changes To North Dakota
Aviation Quarterly, C/O Greg Haug, P.O.
Box 1306, Williston, ND 58802.

Beech V tail beef-up kit must be installed by October 31, AD 87-20-02. Beech Aircraft is also participating.

FAA moving to require improved ELTs. FCC has ruled all ELTs built after October 1 meet TSO-91a. Also new aircraft be required to have new ELTs plus replacement units for older units.

Hartzell Service letter No. 61P contains overhaul periods for Hartzell props and governors.

McCauley Service Bulletin No. 137C contains time between overhaul (TBO) specifications for all props and governors.

Sensenich use and care instructions dated 9/78 contains information regarding overhaul periods.

Copies of aircraft records can be obtained by contacting:

Mike Moroney Aeronautical Center
Attn: Aircraft Records
P.O. Box 25082
Oklahoma City, OK 73125
405-686-2116

Comanche Wing Spar AD 82-19-01 rescinded due in part in on going effects by AOPA and International Comanche Society and Piper Aircraft. This becomes effective 4/27/88. Check your biweekly's.

Electro systems is finally offering replacement carburetor parts. Check your vendor for availability.

"Mechanic of the Year Award" — start thinking about an entry. Remember all expenses paid to convention plus cash. You can send in application any time.

P
A
M
A



F
U
N
N
I
E
S

Anyone having any information regarding this picture please notify the authorities. It was reported recently that this aircraft landed as photographed and a person was reportedly observed writing in documents and giving them to operator of aircraft.

North Dakota 99's

Beth Lucy
North Dakota Chapter 99's

The North Dakota Chapter 99's held their August "International Meeting" at the Bottineau airport. The meeting had been scheduled at the International Peace Gardens, but fog completely shrouded the Peace Gardens on Saturday morning, August 20 - so Bottineau became the alternate. Five planeloads of women pilots enjoyed picnicking with our Canadian 99's, Sharon Spence and Angela Spitz, from the Saskatchewan Chapter. Sharon and Angela were enroute home from the International 99's Convention, held at Shangri-la Resort at Afton, Oklahoma.

Two of our North Dakota members, Dianne Herr and Beth Lucy, also attended the International Convention as delegates. The international organization

of women pilots, with membership of 6600, had 331 delegates in attendance. One highlight of the convention was a luncheon at which female airline pilots were honored. There are over 1000 female airline pilots worldwide, of which 125 are captains. Most of our major airlines had flight crews in attendance, plus pilots from several foreign countries, including Canada, England, Holland and India - all of whom were beautiful women. North Dakota can be proud of Jean Harper, A UND graduate, now a United first officer.

At our September chapter meeting, held in Jamestown, Gwen Vasenden of Fertile, MN, was installed as the new chapter chairman. Congratulations, Gwen!

One PIREP of interest: the rest rooms in the new 99's International Headquarters Building at Oklahoma City are labeled "PILOTS" and "CO-PILOTS". Care to guess which is which?

"ND Aeronautics Commission Update"

Gary Ness, Director, North Dakota Aeronautics Commission

AIRPORT INSPECTIONS

The Aeronautics Commission has completed the 5010 Airport Inspections for the FAA and we can report that our system is getting better each year. There are still some concerns on some facilities, however, overall airport management has done well in attempting to comply with all safety regulations. As has been the case for the last 8 years, the staff visited every airport in the state. At this coming year's Aviation Symposium, we will be in conjunction with AAND presenting an "Airport of the Year" award. We hope this will create even more interest in the improvement of the airport facilities in the state. Pride and competition will help all involved.

CONSTRUCTION PROJECTS:

The Aeronautics Commission as of September 1, 1988 has granted \$193,497.87 to the state airport system for repair, maintenance, and improvement. The grant requests approved are listed below:

Airport Name	Project Description	Grant Amount
1. Ashley	Overlay of Runway	\$ 48,993.00
2. Bowman County	Rubberized Crack Sealing	3,825.00
3. Carrington	Chip seal coat & crack sealing	4,479.16
4. Casselton	Construct concrete hard surface rwy	28,000.00
5. Center	Chip seal coat, seeding, lights, marking	15,000.00
6. Drayton	Grading, Culvert	5,500.00
7. Ellendale	Rubberized Crack Filling	1,581.15
8. Enderlin	Asphalt overlay	30,000.00
9. Enderlin	Overlay rwy and legal fees	1,001.21
10. Beach	Rubberized Crack Filling	1,250.00
11. Sky Ranch - GF	Chip seal, mkg, lights	8,500.00
12. Hillsboro	Rubberized Crack Filling	5,000.00
13. Larimore	Rubberized Crack Filling	774.10
14. Mayville	Acq. 6.5 acres land for rwy. ext.	10,250.00
15. Mott	Chip seal, mkg	18,500.00
16. Northwood	Crack sealing, runway repair	1,000.00
17. Park River	Rubberized Crack Filling	844.25
18. Rolla	Rubberized Crack Filling	5,100.00
19. Watford City	Rubberized Crack Filling	3,900.00



AIRPORT RUNWAY LIGHT CONTROLLER

In cooperation with the Office of Intergovernmental Assistance, the Aeronautics Commission and the Airport Association of North Dakota (AAND), obtained a \$50,000 grant from the Petroleum Overcharge fund to provide financing help on a 60% State/40% Local share basis, up to \$900 per airport for the purchase and installation of Radio (clicker system) light controller for the 53 state airports that do have them installed now. Those airports eligible will be contacted on the desire to participate.

This program will not only enhance safety by having lights available around the clock, but also will take the burden off some airport's budgets on lighting costs.

When completed, we will have a complete state-wide system of lighted airports available at anytime on the clock.

PAVEMENT MANAGEMENT STUDY

The Aeronautics Commission obtained an FAA grant to put together a Pavement Management Program for the state's airport system. Phase I of the program will be completed on the air-carrier airports by the end of 1988. Phase II, which is the remaining airports, is planned for completion by the Fall of 1989.

This study will give the Commission and airport management the information to make intelligent decisions concerning repair and maintenance. When completed, we'll know the condition, life expectancy, and maintenance options on all our systems. With tight budgets, we'll be able to plan ahead for projects in the future better because we will know what the condition the airports are in and how to best utilize the maintenance plan.

CALENDAR OF EVENTS

- OCT. 15** Chapter 99's Meeting
Fargo - 11:00 a.m.
Hostesses: Lou Weber & Em Laskey
- 17-21** Operation Raincheck - 7:00 p.m.
- 17** Bismarck - Heritage Center Auditorium
- 18** Williston - SerVair Hangar
- 19** Minot - Trinity Hospital Adult Ed. Room
- 20** Grand Forks - UND-Center for Aerospace Science
- 21** Fargo - NDSU Stevens Auditorium
- NOV. 19** Chapter 99's Meeting
Valley City - 11:00 a.m.
Hostess: Margo Evenson
- DEC. 5-8** NDAAA's National Convention
Las Vegas, NV

AVIATION ECONOMIC IMPACT STUDY

I want to thank the aviation community for their help in putting this study together. We'll have it totally completed and published by the end of the year. As you saw in the last issue, aviation does significantly affect the state's economy. The Commission will have available for your use those figures that are important for any presentation anyone would like to make.

It's been a busy and interesting first nine months of 1988. I'm sure the last quarter will be as exciting with the legislative session coming up and a national election in November. Don't forget to exercise your right to cast your ballot for your choice. If you don't vote, you shouldn't complain. So, if you like to complain, please vote.

MODE C (NPRM 88-2)

At the time of publishing, the FAA will have heard the Fargo area's concerns about designating the airport as a Mode C ATA. (FAA Listening Session - September 29th).

After a survey taken from all aircraft owners in Cass County, we found that 87% of all aircraft at Fargo Hector and West Fargo, that do not have the equipment will move or sell aircraft before installing a Mode C Transponder. This is a significant number and the cost factors related to this exodus is staggering.

Everything will be done from now until December 30, 1990 to keep this ATA from being established. The local aircraft industry will have to join together in a common cause to stop this non-sensible rule making.

BEFORE THE SNOW FLIES

Erling Rolfson, Vice President, AAND

Airport management and local aviators need to work together in winterizing the airport. The airport managers need to hear the airfield users suggestions to correct deficiencies before the fair weather construction season is over. This teamwork approach should make every communities airport a safe environment for business and pleasure flights.

Management needs to check:

- The runway lighting system for short circuits and missing or misaligned fixtures.
- Check the beacon alignment and vasi settings.
- Cut the grass short along the runway to prevent snow from drifting.
- Paint the runway centerline to keep pilots in the middle of the snow bordered edges.
- Put up new bright orange windsocks.
- Check windsock lights.
- Prepare the snow removal equipment.
- Roll turf runway grass clumps down when wet.
- Get the phone working inside your terminal or hangar.
- Cut trees in the approach path.
- Fill the gopher holes.

These are only a few suggestions on how to better prepare your airport for the coming winter season. Remember that at 93 general aviation public use airports in North Dakota, we don't have full-time paid managers so local support by area pilots to these part-time managers is vital. Please lend a helping hand and take pride in your communities investment at the airport.

"Council Meeting Highlights"

Gordon Person, Chairman
North Dakota Aviation Council

A board meeting of the Council was held at the Kirkwood Motor Lodge in Bismarck on September 8th and below are a few highlights from this meeting.

- Greg Haug was appointed to take Jerry Olson's position on the Council and also the position as Editor/Publisher of the Council Newsletter.
- Established an account to cover mailing costs of the newsletter.
- Submitted a tax exempt non-profit status application for the Council to the IRS.
- Heard a report on a Mode C survey that was sent out to aircraft owners in Cass County. The majority of the owners said they would move and base their aircraft outside of the proposed Mode C area, creating an economic loss to Fargo.
- Discussed convention preparation needs and responsibilities.
 - Committees to prepare reports for next meeting
 - Speaker confirmations
 - Exhibitor correspondence
 - Pre registration changes
 - Theme for the '89 convention
 - Possibility of having NASA Astronaut Jim Buchli as main speaker
- Heard an update on where the Airport Block Grant Program stands and the need to support is continued funding.
- NDPA reported-that-only 50 of 3600 pilots in N.D. are NDPA members.
 - A rewrite of Part 61 & 141 may be coming downline and that UND will be (simulator) training pilots on DC-9s and 727's in 1989
- Heard a report by NDPAMA on their involvement in rewriting Part 147 (approved mechanic schools).

Letter from the President...

Bob Simmers, President
North Dakota Aviation Association

Greetings:

This letter will have to suffice as a Holiday Greeting card as well, as this will be the last newsletter before the Holiday Season, so Happy Holidays to all North Dakota Aviators.

For those of you that don't know I have a new home. As of September 12, I have been employed at Executive Air Taxi Corp. of Bismarck. This move will put me closer to the aviation activity in the state. My family remains in Jamestown, but plans are for them to join me here in the spring after school is out for the summer. It will be a long winter, but that's progress I guess.

The Symposium is fast approaching again. We hope again that this convention will be interesting, informative and festive for everyone. The success of last years convention has bred new life into the council and has stirred a dedication to organize an even better convention. For those of you who are NDAA members, I need some input as to what your concerns are so that we can organize some events that will satisfy the needs and concerns of you, the membership. Dave Hendrickson and I have some ideas, but we need that outside input to try to tailor the information to your needs. Unless there is great opposition, NDAA will again provide some evening entertainment for the troops.

I want to take some space to thank Governor Sinner for efforts and interest in AVIATION in NORTH DAKOTA. Through his efforts, and with the help of Gary Ness and the Aeronautics Commission, 53 airports in the state can qualify for

the sharing of \$50,000.00 in grant money to install PCLS lighting at their airports. Governor Sinner has also taken the time and energy to address the mode "C" regulation as it pertains to the Fargo area and to make a trip to Fargo to relay those concerns to the regional FAA while they were in town to hold a public forum. His continued efforts to save North Dakota aviators from Federal Mandates shows TRUE GRIT and a definite dedication to the future of aviation in North Dakota. THANK YOU GOVERNOR SINNER!!

I realize that this has been a slow summer for a lot of us in aviation. We can only hope that 1989 will be better for all of us here in North Dakota. Have a great winter and a Happy New Year.

FAA Projects In North Dakota

Steven J. Obenauer
Manager For Technical Support
Dakota Airway Facilities, Bismarck

The FAA's Airway Facilities personnel are responsible for installing, maintaining, and upgrading the systems used in aviation and air traffic control. Routine maintenance on these systems may require them to be removed from service and shut down for short intervals. Major projects, however, usually require extended shut-downs. For example, we are currently rebuilding the roofs of our VOR's and must remove them from service. NOTAM's are always issued to advise you of the planned shutdown.

We currently have shut down the Jamestown VOR for roof repairs and will have the VOR out-of-service from September 12 through November 4, 1988. We are planning next spring to shut down the Dickinson VOR for 6 weeks and the Bismarck VOR for 3 weeks for similar projects.

We are also planning numerous projects for the next year, such as:

1. An RCO will be established at Bowman this fall.
2. The approach lighting system serving runway 35 at Fargo will be replaced in 1989.
3. The Dickinson Flight Service Station will be consolidated with the Grand Forks Automated Flight Service Station in October.
4. The Grand Forks DF will be replaced with a state-of-the-art system.
5. The automation system at the Bismarck ATCT will be upgraded to provide minimum safe altitude warnings and conflict alerts.
6. LORAN-C monitors will be installed in VOR's at Devils Lake, Fargo, Dickinson, Minot, and Williston.
7. A remote monitoring system will be installed on the Williston ILS to enable us to remotely monitor and control the system.

Gubernatorial Candidates Quizzed

Greg Haug, Editor
North Dakota Aviation Quarterly



Sinner

The North Dakota Aviation Quarterly quizzed Governor Sinner and his opponent in the upcoming election for Governor, Mr. Leon Mallberg, on key issues affecting the future of our aviation community.

The questions are set out below:



Mallberg

1. *I have not finalized the budget; that process will be completed about December 1, 1988. However, it presently appears impossible to include the full \$1 million for the block grant program for the next biennium.*
2. *The Aircraft Excise Tax Law was modified in the 1987 session to make it more equitable and fair to all transactions. I understand this change is tracking well and have no plans to make additional changes.*
3. *We are continuing to work on plans for a Department of Transportation. It is absolutely critical that we seek out and implement all possible means of increasing efficiency in state government. I plan to include the Aeronautics Commission in a Department of Transportation only to the extent that such action would improve coordination between the agencies involved.*
4. *The financial assistance to the secondary airport system is statutory and no changes are planned. The benefits of this program to our state's smaller communities are clear. It helps them maintain a facility that in turn helps encourage economic development in the communities.*
5. *A recent report puts the total economic impact of aviation in North Dakota in excess of \$460 million. The citizens involved in the industry are a vital element of the transportation of goods, services, and medical treatment for our entire state. I envision that this industry has a bright future with the potential to contribute even more to the progressive direction North Dakota must take to achieve a broad-based economic recovery. The industry is diverse within itself and many factors in education, research, and industry point to that bright future.*

1. Do you intend to include in your budget the issue of the block grant program at the one million dollar level?
2. Do you anticipate any changes in the taxing structure for aircraft?
3. Do you intend to push for the creation of a state Department of Transportation that will include the Aeronautics Commission?
4. Do you have any plans that may impact the secondary airports system in the state?
5. Are you satisfied with the aviation communities activities in North Dakota and its contribution to the economic future and well being of North Dakota?

1. *Yes, the budget is being formulated now that will include the Airport Block Grant Program at the one million dollar level.*
2. *No, the budget will not call for any changes. If changes are to be suggested, they will come from the tax department.*
3. *No, however I feel the need for restructuring of surface transportation departments, commissions and agencies into some form of state DOT, excluding the Aeronautics Commission. Surface transportation differs from Air transportation. 'In theory it may sell...but in practice it may not be practical!'*
4. *No, I believe the secondary airport system is a valuable asset to the states economy. I will continue to support secondary airport programs.*
5. *'Absolutely yes, doing nicely'. The economic condition has impacted the North Dakota Aviation Industry, however 'the Boot-strapped type of people in the Aviation Community are well organized and on the move'.*

Don't miss this opportunity to
exercise your right to vote!



VOTE NOV. 8



FLYING TIP

John Bridewell, UND Instructor

Winter flying will soon be upon pilots in the northern plains. Here in North Dakota, flying in the cold air is exhilarating. Aircraft seem to leap off of the ground, and climb rates astound pilots when they compare present performance to what they had become accustomed with over the summer months. Pilots must remember, however, that winter flying is different and requires extra diligence to avoid potential problems.

Here are some suggestions in the form of a checklist to help North Dakota snowpilots prepare for the coming blustery blast.

- ▶ Pull out the old ground school manuals and read up on winter flying. Even if they are old, they contain valuable information. There are many FAA publications and pamphlets as well as popular aviation magazine articles to enlighten or remind aviators of facts that can help them have a safe season of flying.
- ▶ Watch the oil temperature before takeoff. Sometimes extra time will be required to get the temperature up into the green.
- ▶ Dressing properly can save ones life if a forced landing situation presents itself. Take along a winter survival kit. Many articles can be read on survival techniques.
- ▶ If practicing power off maneuvers, consider keeping the engine at 1500 RPM or 15 inches of manifold pressure. This will help keep the engine warm and avoid loss of an engine on the go around.
- ▶ Overpriming can result in an engine fire. As many as six shots of prime are recommended in some operating handbooks if the engine is cold, but beware, too much fuel is a fire hazard if a backfire should occur.
- ▶ Take extra precautions to keep water out of the fuel. Water which freezes can create a variety of problems in the fuel system and its components.
- ▶ Remove all snow and ice from the aircraft before flight. Frost alters the lift-drag ratio and can prevent a takeoff. There is no such thing as a "little frost".
- ▶ Change to a lower weight of oil for winter operations. Congealed oil has caused the failure of many accessories.
- ▶ Use a winterizing kit to help maintain engine operating temperatures and to prevent oil coolers and vapor lines from freezing.
- ▶ Storing an aircraft in a hangar is the best kind of preheat. If using a portable heater, make sure it is in good condition, don't refuel the aircraft while the heater is operating, don't leave the

airplane unattended, and keep a fire extinguisher handy.

- ▶ Add the crankcase breather to the aircraft checklist for the preflight. If the opening freezes over, the engine may suffer blown crankshaft seals.
- ▶ Inspect the cabin heating system. Carbon monoxide can leak into the cabin incapacitating the pilot.
- ▶ Inspect anti-icing and deicing systems for proper operation. Don't fly into known icing conditions unless everything is in order.
- ▶ Remember, winter weather can change quickly. Wise pilots always leave themselves an out. Marginal weather is usually a "NO GO" situation in the winter.
- ▶ Become familiar with the aircraft's performance and limitations, particularly if a ski trip to the mountains is planned.
- ▶ Review all systems operations, particularly how cold weather can change recommended operational procedures.
- ▶ Avoid taxiing through standing water or slush. This can later refreeze on aircraft controls or landing gear preventing proper operation.
- ▶ File a flight plan, or at least let friends and relatives know the departure and estimated arrival times and route of flight. Doing both sounds like a good idea.
- ▶ Do a postflight inspection of the aircraft. Plan early for the next flight and keep problems from occurring in the first place.
- ▶ Winter is not particularly hazardous if pilots use extra caution and exercise good judgment. Don't be caught being complacent.

The Decade of the 90's

Jack Daniels, NDAA

As you may know the National Air Transportation Association, NATA, is spear heading a "GAME" plan to educate the public in the benefits of General Aviation.

It is an attempt by the aviation community to make everyone as aware of General Aviation as they are of raisins. The national news media will be used in all forms to take this message to the populace in general. Ads will appear in the Wall Street Journal, USA Today, Time, Corporate Travel as well as CNN Headline News and other widely circulated publications and media TV programs.

This is a 15 million dollar effort and needs the support of each and every one of us. Give it some thought, it is a maximum effort attempt to save what is left of the general aviation world.

If you want to support the program or need additional information call for "GAME" plan at (703) 845-9000.

"- Pilots Beware -"

Courtesy of Law Offices of
Robert D. Powell, Washington, D.C.

FAA, in its efforts to set a record for violations, has come up with some real doozies, to wit:

In this case the pilot in command, operating a Westwind II landed at Teterboro, and exited the taxiway, coming to a virtual halt on a ramp in front of the FBO. Then, under the direction and at the instruction of a FBO's line person, he proceeded to move slowly and cautiously around a line of aircraft, through a tight opening for the purpose of parking, for the convenience of the FBO, in a non-standard location. Unfortunately, formal marshalling signals were not being employed, although the line person testified that the PIC was doing exactly what he required him to do. The first officer, a highly experienced pilot, was looking out at the starboard wing. During this maneuver, conducted under the supervision of the line person and the watchful eye of the first officer, a wing tip to wing tip took place, causing minimal damage. The incident was observed by a pilot employee of the FBO, who immediately called an FAA inspector who happened to be a friend of his. The result was a violation being lodged against the PIC, with the FAA seeking a fifteen day suspension of the pilot's ATP certificate for a careless and/or reckless operation.

After a full hearing, the ALJ found that neither the guidance of the line person nor the activity of the first-officer excused the PIC from being careless, and thus in violation of FAR 91.9. In a confusing decision, the judge found that the PIC was not entitled to rely on the informal marshalling signals being conveyed, or the first-officer's observations. The issue in the case on appeal is the PIC's responsibility in a guided taxiing situation, and the FAA's jurisdiction over a ramp operation under the regulation charged.

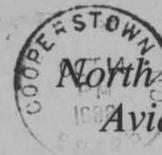
NDPA MEETING ANNOUNCEMENT

John Bridewell
Secretary-Treasurer, NDPA

The North Dakota Pilots Association and the Nodak Flying Club in Grand Forks announce a safety meeting to be held at the Townhouse in Grand Forks, North Dakota on Wednesday, October 12, 1988. The meeting will begin promptly at 7 p.m. An NDPA business meeting will be held immediately following the safety meeting. The public is invited.

LEANING — A REVIEW

Taken From Lycoming Flyer - July '88
Paul Smith, President NDPAMA



North Dakota Agricultural
Aviation Association

Tim McPherson
President, NDAAA

1. Textron Lycoming direct drive, normally aspirated engines (carburetted or fuel injected).
 - a. May be leaned at any altitude, at manufacturer's recommended *cruise power* (usually 75% or less).
 - b. In climb from sea level through 5,000 feet *density altitude*, mixture must be *full rich*. For continued climb above 5,000 feet, mixture may be leaned to prevent an excessively rich mixture and to obtain smooth engine operation.
DO NOT confuse the 5,000 foot reference for climb with the cruise configuration.
 - c. Operation at higher than 75% power without reverence to fuel flow, cylinder head temperatures, and without knowledge of specific power, requires full rich mixture.
 - d. Lean to the **MAXIMUM POWER RANGE** for take off from high elevation airports.
2. Textron Lycoming *turbocharged* engines.
 - a. The turbine inlet temperature gage (TIT) is a required instrument with turbocharging.
 - b. During manual leaning, the TIT must not exceed the temperature limit specified in the POH. Although a few specify a higher temperature limit, 1650 degrees F (900 degrees C) is the limit for most installations.
 - c. When leaning the mixture at cruise power, if TIT limit is reached before reaching peak, do not exceed the limit to find peak.
 - d. Operation may be at peak during cruise provided TIT does not exceed red line maximum and cylinder head temperature is at or below the 435 degrees F (224 degrees C) recommended for continuous operation. Mixture may be adjusted anywhere on the rich side of peak provided CHT, fuel flow and TIT all remain within limits defined in the POH.
 - e. All full throttle operation, including all takeoffs, with turbocharged powerplants must be at full rich mixture regardless of operating altitude or airport elevation. Excess fuel is needed for cooling and detonation suppression because of the high induction air temperatures created by turbocharging.
 - f. Always consult the POH for variations of procedure and limitations which apply to the engine installation of each specific aircraft model.

To summarize, service instruction No. 1094, the Engine Operator's Manual, and the Pilots Operating Handbook give specific leaning information for the engine or aircraft model. These additional summary items also apply to the leaning of Lycoming engines. Proper leaning is a factor in keeping CHT in the specified temperature range. The engine should be operated at a lean setting during descent from cruise altitude to traffic pattern altitude. The mixture control should be placed in rich before increasing power. Normally aspirated, direct drive Lycoming engines should be leaned for cruise (75% power or less) at any altitude. Because leaning techniques vary, the POH for each aircraft should be carefully studied. Finally, a thorough checkout in the aircraft will help leaning as well as all other operating techniques.

The season is pretty much winding down for most of the applicators across the state. The Drought of '88' won't soon be forgotten. Like most of the farmers, the Ag-Operators as well, are looking to next year, for hopefully a better season. When it doesn't rain, the farmers don't spend any money, Period. It's actually frightening to see how much our communities are dependent on agriculture. It's good to see that the farmers will be receiving some drought assistance so they can pay their bills. Maybe some day the other facets of agriculture will be recognized since they have suffered through this drought as well.

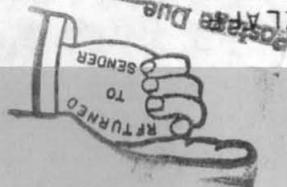
Many operators were down in acres except for some isolated areas which were hit by grasshoppers and some spider mites. Of course with no rain, the fungicide season was just about non-existent. The Ag-Associations next order of business will be their annual fall meeting, which will be held Sept. 30th at the Seven-Seas Motel, in Mandan. The schedule is for a business meeting from 10 a.m. to 2 p.m.; from 2 until 5, there will be a trap shoot and pattern test at the Mandan airport. The pattern testing will be done with the new string equipment and will be run by NDSU engineers. The highlight of the evening will be a riverboat dinner-cruise as a season finale. Many of the chemical Reps have donated to the expense of the meeting, so thank them if you happen to see them.

Dupont Chemical Co. is going to give away a free jug of Harmony Herbicide to the first 25 new members that sign up at our spring convention. Something for all you ag operators that are not members to think about. The National convention will be in Las Vegas December 5-8th.

Convention-goers will be asked to pre-register for the 1989 Upper Midwest Aviation Symposium. This change is being made for your convenience and to streamline the opening day of the conference. Look to the January issue of the "Quarterly" for more information on pre-registration.

PO Box 1306
Cooperstown ND 58425

MARVIN RETZLER
COOPERSTOWN MUNICIPAL AIRPORT
988 HOBART AVENUE
COOPERSTOWN ND 58425



ADDRESS CORRECTION REQUESTED
Williston, North Dakota 58802

North Dakota Aviation Quarterly
Box 1306

BULK RATE
U.S. POSTAGE
PAID
Williston, ND 58801
PERMIT NO. 77