AVIATION NEWSLETTER

Vernon H. Baltzer, Editor

STATE OF NORTH DAKOTA

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AERONAUTICS COMMISSION
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Director

Telephone 701-224-2748

August - September 1977

AVIATION AUTOMATED WEATHER OBSERVATION (AV-AWOS) SYSTEM TO BE TESTED BY FAA

A automatic weather reporting system using a series of automatic sensors that will collect weather information, including cloud height, visibility, temperature, dew point, wind direction and speed, precipitation and barometric pressure 24 hours per day is to be tested by FAA for a 4 month period. Readings from the sensors will be fed into a computer that will transfer the data into a weather report. The digitized information will then trigger a voice capability in the computer, which can broadcast directly to pilots in the air or through telephone lines without human intervention. The computerized weather reports will also be available on cathode ray tube display at the local flight service stations and Norfolk tower at Patrick Henry International Airport, Newport, Va., where the test is to be conducted.

Part 135 operations could be adversely affected in the future because a proposed Part 135 revision, which if adopted, would require that weather observations made and furnished to a pilot operating under IFR conditions must actually be taken at that airport instead of at some point near that airport.

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EXTENSION OF COMMENT TIME ON PART 135 PROPOSAL SOUGHT

The National Air Transportation Association has petitioned the FAA to extend the closing time for comments on the sweeping revisions of Part 135 from November 28, 1977 to February 28, 1978.

NATA is also unhappy about the way FAA handled the review of the proposal and cited FAA's big hearing in Denver last November, in which many changes were suggested by operators and which were almost totally ignored.

NATA Board Director, Jack Daniels of Williston, N.D., complained bitterly about the fact that many operators spent their own time and money to attend the Denver meeting to lay their cards on the table, so to speak, but never got to see any of FAA's.

He concurred with what NATA President Larry Burian said in a letter to Langhorne Bond, FAA Chief, wherein because of FAA's apparent callous indifference in this matter, FAA's credibility has eroded sharply and will continue to do so unless a sincere effort is made to be more responsive to user groups in future meetings of this nature.

Daniels said that although he asked FAA repeatedly, as to what the rationale and background of thinking was on the proposals, also as to or whose instigation they were rewritten, he said he never once received an answer. He further stated that the North Dakota Aviation Association was behind President Burian in requesting the extension.

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FAA TO SUPPLY EDUCATORS WITH TEACHING AIDS

The Rocky Mountain Region of FAA has been selected as one of two Regions to supply educators with materials on aviation education to be used from the elementary level up through University level.

Counselors, faculty and students can also request the material, although it is coded and students are not eligible for all of the material. Anyone interested, will have to write for RM Form 1250-1, which is the listing and the order blank for the free material. Form 1250-1 can be secured by writing to Department of Transportation, Federal Aviation Administration, 10455 E. 25th Ave., Aurora, Co. 80010 or to the N.D. Aeronautics Commission, Box U, Bismarck, N.D. 58505.

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REMEMBER - OCTOBER 1st is the deadline for filing N.D. aviation gas tax refund.

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NO, NO you did not miss any of this years issues of the N.D. Aviation Newsletter. It just wasn't written or printed because of the press of other duties.

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FAA AIRPORT DISTRICT OFFICES A THING OF THE PAST

The first paragraph of "Airportopics", an in-house newsletter of the Rocky Mountain Region Airports Division, spells out when they state, "Effective September 19, 1977, delivery of services for Airports Programs in the Rocky Mountain Region will experience a major change with completion of the reorganization of Airports Division."

As stated in the title of this article and the first quoted paragraph, the date of September 19, 1977 marks the end of a very fruitful era of airport construction here in North Dakota. This era came about because of the easy access to FAA Airports Division through a maximum of field Airports District Offices.

North Dakota, South Dakota and Montana objected strenuously to the closing of the District Offices and a compromise of sorts was reached.

The Airportopics Newsletter, in giving the thinking of the rational behind the reorganization goes on with the following 3 paragraphs:

The Division currently serves our six-state region with Airports District Offices located at Denver, Colorado; Salt Lake City, Utah; Helena, Montana; Bismarck, North Dakota; and Pierre, South Dakota. These offices functioned as extensions of the Regional Office of Airports Division in Denver, and as such, were staffed with sufficient skills to perform most Airports services and activities. They were established under a policy of making government easily accessible to the public through a maximum number of small offices.

Over the last several years, however, the Airports Program experienced serious reductions in staffing such that it was no longer able to staff field offices with sufficient skills to accomplish program activities. This, with a corresponding increased workload imposed by legislation, made it essential to close Airports District Offices to retain operational effectiveness of manpower resources remaining in the program.

In consideration of these factors, it was decided to close all of the Region's Airports District Offices and relocate field functions and personnel to the Regional Office in Denver. As a minor exception, small engineering field offices will be retained in Helena, Montana and Bismarck, North Dakota, to serve as contact points to the aviation public on airport matters and to provide engineering services for Airports programs within those states.

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UNIVERSITY OF NORTH DAKOTA TO HOST REGION 5 NATIONAL INTERCOLLEGIATE FLYING ASSOCIATION AIR MEET THE 7TH & 8TH OF OCTOBER - 9TH IF NEEDED

Invitations have gone out to 10 North Central Universities to compete in the annual 5th Region Intercollegiate Air Meet, which is being hosted by UND this year.

Beth Lucy, Jamestown, has been named as chief judge and she will be heading a cadre of 10 other judges in judging the meet. Approximately 40 contestants are expected to participate in the 8 events that normally make up a meet. The 8 events are broken down to 4 flying and 4 ground. The flying consistsof (1) Power on accuracy landings; (2) Power off accuracy landings; (3) cross country navigation; (4) air message drops. In the ground events then will be (1) Aircraft recognition; (2) Preflighting; (3) Simulators; (4) Computer accuracy. If weather permits, all events will take place. The 9th of October has been reserved as a weather date.

Saturday evening, there will be a banquet and awards dinner. The overall winner will be eligible to participate in the National Intercollegiate Flying meet to be held at Central town University, Tennessee sometime later this fall.

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STOLEN AVIONICS EQUIPMENT IN MINNESOTA

Aircraft owners and avionics shops should be skeptical of being offered avionics for sale by unknown persons as they could well be stolen. A 1977 Beech A-36 owned by James L. Phelps, Elliott Flying Service, Inc. 13801 Pioneer Trail, Eden Prairie, Minn. 55343 at telephone 612-944-1200 was stripped of the following and if you should run across any of this equipment, please notify him. The following is the list of the stolen equipment with serial numbers:

Collins Microline

Equipment Type	Serial No.
VIR - 351	6423
VIR - 351	8493
VIR - 251	8027
VIR - 251	8523
RCR - 650	4643
IND - 650	4647
TDR - 950	4517
AMR - 350	4176
GLS - 350	4652

King KFC - Flight Control System

KI - 525A	5836
KI - 255	5603
KA - 285	1643

SURPLUS PROPERTY - continued

Recently, Mr. Martin Aarthun, the director of SASP, made a mailing to all airport authorities and to municipal airports (some could have been missed) within the state outlining the procedures and supplying forms to file application for this "Eligibility for Federal Surplus Personal Property Program". It is necessary that these forms be completed and filed with SASP and an authorization and card on file which names the person or persons that the airport or authority has authorized to sign for and receive property and will be held accountable.

Under #3 of the instruction (Public Agencies) Airport Authorities and Municipal Airports need not include proof that they are a public agency, according to an interpretation received from Mr. Aarthun, the director.

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AERONAUTICS COMMISSION/FAA DONATION PROGRAM TO CONTINUE

Even though as indicated in the previous article, airports are eligible under SASP for surplus personal property, the Aeronautics Commission under its joint FAA donation program, will continue to operate. During the previous few years, the Old West Regional Commission Excess Property Division under Robert Olson, did a commendable job in securing property for the cities and counties of the State, but as of the 15th of September, has closed that program. Mr. Olson stated to the Newsletter, that of $12.2 million dollars of property secured, most or 73% came from outside of the state. The N.D. Aeronautics Commission intends to move into this gap created by the discontinuance of the Old West Surplus Program as much as commission personnel time will allow, in securing property for airports.

Even though a large amount of property is still available for donation, a new method of disposing of equipment by the government has reduced it quite significantly. The procedure is called exchange sales and works as follows. If a Federal Agency wishes to dispose of a piece of equipment, they put a value on the article and it then is listed as available to any other Federal Agency upon a payment of the price and a lateral transfer is made.

If no other federal agency request the property, it is then offered for sealed bid sale to the public. Under the foregoing method, the Aeronautics Commission has been instrumental in alerting various airports and airport authorities to the opportunity to bid on select equipment, such as large snow blowers, motor graders, etc. Let the Aeronautics Commission know if interested in this method of securing property.

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AIRCRAFT GROUND HEATERS

In a telephone conversation with Mr. Paul Sigurdson, President of Aerotech Corp. of Winnipeg on the 15th of September, the N.D. Aeronautics Commission was assured by Mr. Sigurdson that deliveries of the long awaited aircraft ground heaters would start in ten days and be completed within 15 days to all designated airports within the state.

Mr. Sigurdson gave as a reason for the delay, the firms move to a larger plant. He also stated that his firm had made large purchases of heaters in Alaska, Europe and California and that they have ample heaters to fill the commitment.

He further stated that if any problems arise with the heaters after delivery, to call the plant and let them know, the number is 204-786-8818.

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WAY-POINT AVIONICS INC. CERTIFIED REPAIR STATION

Larry Buller, a native of the Arena-Wing, N.D. area, opened a new avionics certified repair station No. E-04-14 on the Mandan Municipal Airport last fall.

The new shop has been a success, in that it has ample room in the shop itself 1,000 sq. ft., and additional hangar area adjacent to it that can accommodate larger twins.

The shop, according to Buller, can do 1st and 2nd class work, also 3rd class work limited to transponder, DME and instrument limited to Edo-Aire Auto pilot. He has the latest modern test equipment and harnesses to bench test. The shop is offering Sales and Service for King, Narco, Bendix, Edo-Aire and others. They also are the only authorized Edo-Aire Auto-Pilot shop in North and South Dakota.

Larry is a Vietnam Veteran having spent 3 years in the army as a helicopter crew chief. After his service, he worked for Aero Comm. Systems, St. Petersburg, Florida where he picked up experience on avionics, servicing and installation on helicopters, twins and jets.

Larry himself holds a private pilot license, also an A&P ticket as well as a FCC second class radio-telephone license. He and his wife, Linda and young son, Timothy, of six months, live on Rt. 2, Box 15, Mandan. He says the coffee pot is always on and he invites all to stop in and have a cup anytime and shop for prices or to have work done.

PROPOSALS TERMED ILLEGAL - STATE SIDETRACKS AIR AMBULANCE RULES
(Re-print "Flight Line Times")

FAA's plan to impose rules on air ambulance operations ran into a formidable roadblock last week when Harold Vavra, aeronautics director for North Dakota, handed Administrator Langhorne Bond a 15-page letter describing the proposal as illegal.

Vavra made the presentation in Seattle at a meeting of the National Association of State Aviation Officials, where Bond spoke.

FAA recently issued an advanced notice of rule-making in which air ambulance outfits would be placed under a new section of Part 135. In the rules, FAA would require a long list of medical supplies, oxygen, defibrillators, suction units and so forth, on air ambulances. The agency also proposed to require certain dimensions on airplanes carrying stretcher patients, such that many of the smaller operators could not legally load a stretcher patient.

In what may be the final straw, the agency also proposed to license medical attendants, some of whom might be doctors, to ride aboard the planes.

Vavra, speaking with the advice of his state's attorney general, said FAA is trying to "legislate" when its only congressional mandate is "promulgating rules" affecting the safety of flight.

It was made clear that if FAA pursued the rules, there would probably be an immediate court case contesting them.

Vavra pointed out that when the FAA issued the notice, which came after a "two-year exercise", it spoke of the "costs, benefits and other impacts on Part 135 certificate holders, on consumers, on the medical community. ."

He said this and other indications show the agency is engaged in "economic rule making." which is not in its power. Almost nowhere can considerations of safety of flight be found.

Rather, such regulations belong under the Civil Aeronautics Board, he said, adding that the CAB does not have the authority to regulate most Part 135 operators.

"If the FAA desires to legislate," he said, "then the FAA should seek the necessary legislation by the Congress."

The rule-making action pits the FAA against many small air ambulance outfits. On the FAA side is the National Air Transportation Associations (NATA), which had a subcommittee draft rules earlier this summer that were remarkably similar to the FAA's own proposal.

On the other side are several state aeronautics directors and George E. Milligan, head of Mercy Flights Inc., of Medford, Oregon. Milligan's service, in existence since 1946, uses a variety of large and small aircraft to suit the mission.

Milligan has labelled the proposals "a way for certain owners of pressurized Barons to justify the tax write-off."

He argues that the rule concerning dimensions alone would disqualify the Beech A-36, Beech 58, Piper Cherokee Six, Cherokee Lance and Seneca, all of which are now used as air ambulances with success and safety.

Milligan said the rules "would deny to needy patients the use of commonly available aircraft, because they do not meet the money-is-no-object standards set for reasons of personal gain by wealthy aircraft owners."

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SURPLUS PROPERTY

A second source of surplus property has become available after October 17, 1977 to all municipal airports within the state. The present donation program, as it has been handled through the Aeronautics Commission, is and will remain in effect. The new program, an additional source, will be handled under the "State Agency for Surplus Property" (SASP), Dakota Block Room 7, 107 - 5th St., Bismarck, N.D. 58505

Previously, this source was available to airports, only indirectly through local county Civil Defense units, but now will be direct. For the information of those of you Airport Authority Chairmen and Managers, SASP maintains several full time screeners whose duties are to visit air bases, army installations, etc., inspect surplus property, process necessary documents and then load and transport the material to a warehouse complex in Bismarck, which is located at 2020 East Front Ave.. SASP handles mostly small items that are classified nonreportable, which means that they are classified under a certain dollar value or are considered in a code called X condition. They also secure reportable property at times, such as trucks and larger equipment. Basically, they operate the same as the Aeronautics Commission donation program with the exception that a charge is made to cover transportation and handling charges, when they make the re-issue of the property. So if you Airport Authority Chairmen or Managers have personal knowledge that SASP has control of a piece of equipment that you need, by all means use this avenue.

JET THRUST TURBULENCE*

General aviation pilots today have learned to be wary of the wake turbulence hazard from jet aircraft in the sky, but apparently there are many who still do not realize how easily those big jets can also flip you over on the ground, even when they are only idling or starting up.

Today's Boeing 747 generates a takeoff thrust of about 180,000 pounds - roughly equivalent to the thrust of the Delta rocket which is used to launch communications satellites into outer space. At a distance of 1600 ft. behind the jet, the exhaust velocities are over 50 mph.

The most serious problem to small aircraft is not on takeoff but rather when the jet is on the ramp idling or using breakaway thrust to start the aircraft moving to taxi. At a distance of 75 feet from the rear of a Boeing 727 at IDLE POWER, the exhaust velocity is 45 MPH. When this same B-727 comes in with breakaway thrust to begin taxiing, the exhaust velocity increases to 80 MPH at a distance of 75 feet.

POINT: Avoid taxiing behind a jet if its engines are running. If in doubt about engine operation, ask ground control. A two minute investment waiting for a jet to clear the ramp can earn big dividends.

* - From GADO #4 Newsletter

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REMEMBERING WITH NWA*

Carl F. Luethi, retired captain, remembers winters in North Dakota.

"We never will forget servicing and starting the old Hamiltons from a Bismarck nose hangar in subzero weather, or landing near the snow line between Fargo and Pembina to install or remove ski equipment as winter advanced or receded over the northern prairies," Luethi said.

Summer weather, too, was recalled. Martin Knox, retired mechanic, still perspires thinking of record heat in July, 1936, his first year with NWA. On July 14, the temperature was 108 degrees and 130 was not uncommon in an airplane on the ramp.

"What about the temperature in the little radio-instrument shop hung from the girders up under the roof of the hangar?" Knox asked. "The thermometer read 118 degrees one day. You knew it was hot, especially after carrying a 50 pound radio unit up the narrow metal stairs."

Weather on the West End figured in the recollections of B.F. Ritchie, retired captain, as well as an unusual delay in the departure of the first Tri-Motor flight east out of Seattle.

"The departure was at 4 a.m. to permit flights to reach the airway beacons, which extended only as far west as Bismarck, by nightfall," Ritchie said.

Fog hampered departures so the captain suggested placing railroad flares down the runway, to provide directional reference during the take off roll.

"When we passed the third flare, instrument flight began and the eastbound mail was on its way," Ritchie said. "The first flight however, was late in departing. The crew chief who placed the flares, became lost because of the dense fog and it took him 40 minutes to get back to the radio room."

"After that, a rope was tied to the fence for him to follow back to the radio room, where he could give us the all-clear," Ritchie said.

"There is more red tape today, but less rope."

George Benson, flight dispatch, Minneapolis, said NWA'ers were rugged people in the early 1930s. "Importantly, we carried Colt 38-caliber pistols required by the company," Benson said, "most of us though, had them firmly riveted into the holster as soon as we became tired of picking them up off the ground each time we bent over to pick up a sack of mail.

*- Taken from the Minnesota Flyer.

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FLIGHT WATCH (WEATHER) ON 122.0 MHZ

As you have probably noticed, if you have purchased a sectional chart recently, some of the FSS information boxes have had the two upper corners blocked diagonally. This is to convey to the pilot the information, that, that particular FSS has the frequency of 122.0 available for weather flight watch. Flight watch is manned by FSS specialists with access to weather radar from NOAH. Remember this a 2 way street, so don't hesitate to give them some feedback on any weather you have come across or through.

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FALL WEATHER

North Dakota pilots have come through one of the longest periods of exceptionally good VFR weather for flying in the memory of many pilots. Fall now being upon us, will soon change this pattern with its numerous Colorado and Wyoming lows marching from NW to SE and the associated bad weather here in Dakota. Don't let summer complacency, if guilty, lull you into not checking weather thoroughly. Remember a small temperature and dew point spread coupled with early darkness and lowering temperatures, can spell bad trouble. Spend a little more time for a good briefing and always plan a course of action for a retreat or other alternate.

SEE AND BE SEEN CONCEPT VITAL TO AVOID KNOCKING DOWN B-52'S IN OLIVE BRANCH ROUTES

The following well written article by Lt/Col. John Banta, Ret. USAF and the chart on the overleaf compiled by Lee Taylor, the Aeronautics Commission draftsman and printer, should be studied and read by all area pilots.

Today's sophisticated anti-aircraft armament has made high altitude mass bomber penetration of enemy defenses obsolete. However, Low Level procedures now allow aircraft to penetrate enemy defenses below radar detection and get to their designated target areas. To perfect their procedures, Strategic Air Command (SAC) flight crews practice these procedures on low level Olive Branch (OB) routes. A glance at the Airman's Information Manual (AIM) indicates that these routes are scattered across the entire U.S. with routes OB-24 and OB-46 in North Dakota. These routes basically run east and west sharing the same target area north of Bismarck.

Using OB-24 as our example, let us go through the profile of a typical low level mission. As the B-52 approaches the entry point 45 nautical miles west of Dickinson at FL 250, they receive their clearance from ATC to enter the low level route. Once the crew enters the route departing FL 250, they no longer are required to communicate with ATC until they start their climb out of the route. Unless they encounter some difficulty, they could fly one to four hours without traffic advisories or ATC radar coverage. However, they do monitor the Flight Service Stations along the route.

The crew descends from FL 250 to 4000 feet MSL at a speed of 280 KIAS and descending at 2 to 3 thousand feet per minute. During this descent, the crew members are quite busy accomplishing lengthy checklists. After leveling off at 4000 feet MSL east of Dunn Center, the B-52 will continue flying east to the Underwood area. Throughout the route, from Dunn Center to the exit point 12 miles north of Mandan, the B-52 will fly at altitudes varying from 750 feet AGL to 5000 feet MSL and at airspeeds varying from 270 to 325 KIAS.

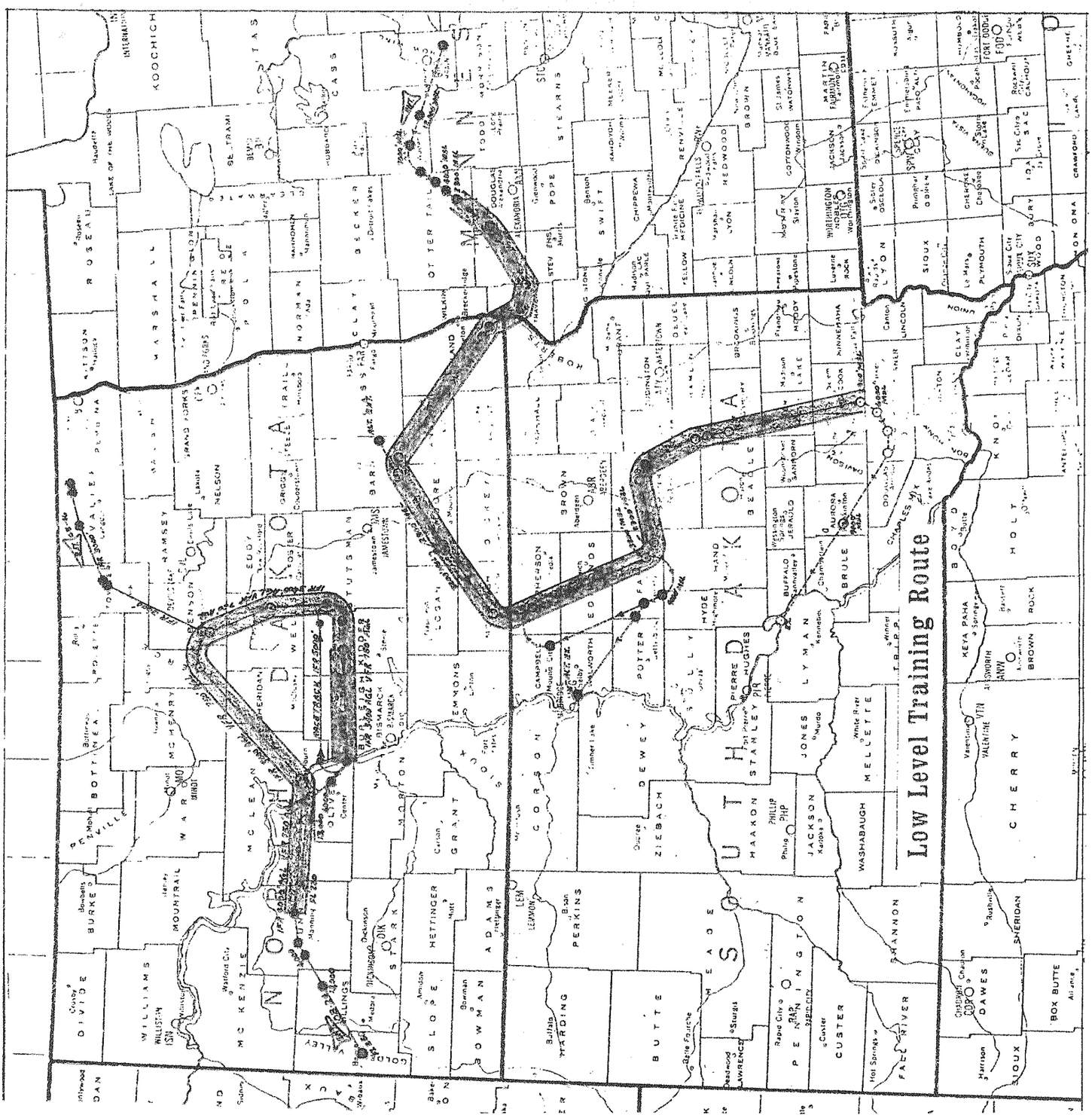
After passing Underwood, the route turns Northeast to a point 7 miles southeast of Balta and then turns south toward the Woodworth area. Once abeam Woodworth, the aircraft turns west to a point 12 miles north of Mandan, on the Missouri River. This segment of the route is called the bomb run corridor.

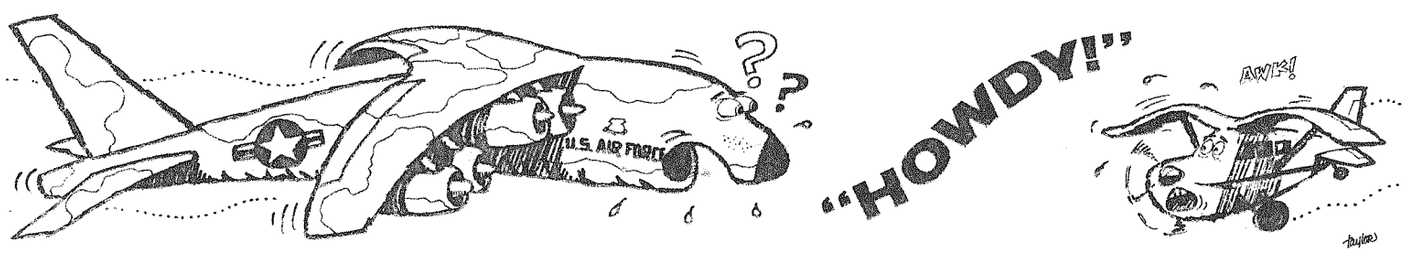
Up to starting the practice bomb run, the crew has been busy completing checklists, maintaining course within 4 nautical miles of centerline, flying the aircraft, and watching for other aircraft. Now the pace really picks up. The copilot has to make last minute radio calls to the radar bomb scoring site in Bismarck and more checklists have to be completed. The airspeed is increased to 325 KIAS or higher and special timing procedures are initiated. While all of this is taking place, the crew, using radar, is busy locating simulated targets along the bomb run corridor. Crew coordination is always important but during this segment it is especially critical to accomplish the mission safely.

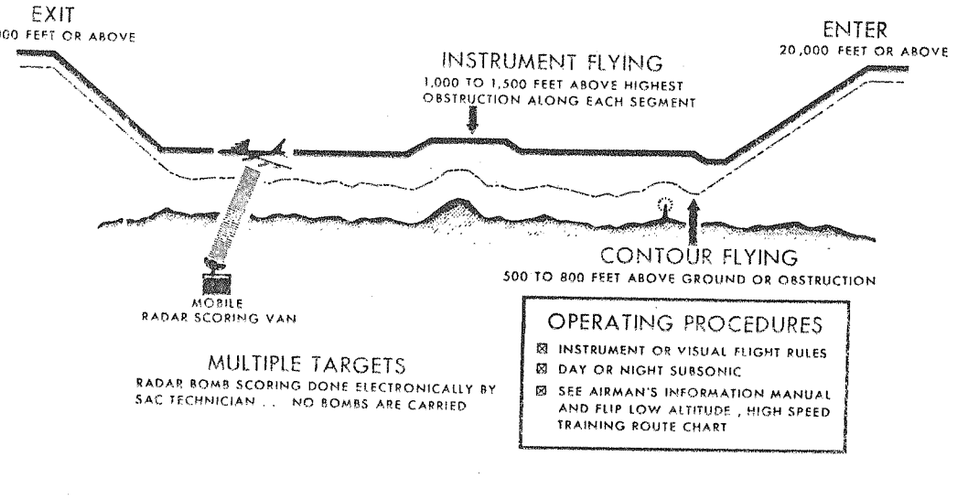
After crossing the Missouri River, the first bomb run is complete and the pace slows down again. Then the crew either makes a slow climbing right turn heading back to Woodworth for another run or initiates their climbout procedures to exit the route. In most cases, a crew will make at least two trips through the bomb run corridor before exiting the low level route.

The OB routes are considered to be all weather routes. This means the B-52's can and do fly the routes around the clock in VFR and/or IFR conditions. During IFR conditions, the route is flown at fixed IFR altitudes dependent upon the terrain elevation along each segment. However, VFR conditions present a different problem. The aircraft fly various altitudes following the contour of the terrain; the lowest altitude on this route is 750 feet AGL and 5000 feet MSL the highest. Probably the biggest hazard is seeing other aircraft in time to avoid them. The B-52 normally moves along the low level route at 500 to 600 feet per second. A safety observer, seated between and slightly behind the pilots, is tasked to aid the pilots in watching for possible conflicting aircraft traffic. If he sees conflicting traffic or any other hazards, he informs the pilot who then initiates appropriate evasive action. In addition to speed, the B-52 maneuvering capability is also limited by a slow roll rate and a two or three mile radius may be required to complete a 30 degree bank turn. If we assume one second to recognize a hazard, one second to start evasive action, and two seconds to reach a 30 degree bank; the aircraft has moved forward approximately 2000 feet before any appreciable change is made in its flight path. Under less than optimum reaction time, this could easily be one half mile or more.

SAC crewmembers are well trained professionals, but limitations in vision and maneuvering capability makes traffic avoidance extremely difficult. To make matters worse, the B-52 is camouflaged. Generally, civil aircraft can maneuver and take evasive action more rapidly, but the hard fact remains, we share the same airspace and we must SEE AND AVOID each other. . .







MULTIPLE TARGETS

RADAR BOMB SCORING DONE ELECTRONICALLY BY SAC TECHNICIAN . . NO BOMBS ARE CARRIED

OPERATING PROCEDURES

- ☒ INSTRUMENT OR VISUAL FLIGHT RULES
- ☒ DAY OR NIGHT SUBSONIC
- ☒ SEE AIRMAN'S INFORMATION MANUAL AND FLIP LOW ALTITUDE , HIGH SPEED TRAINING ROUTE CHART

FOR SALE: 1966 Cherokee C150, 1250 TT engine & aircraft, Mark 3 Radio Narco A50 Transponder. Contact Dan Moffet, Wyndmere Flying Club at 701-274-8252.

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FOR SALE: 8KCAB Decathelon, 700 TT, redone inside and out, new prop, new paint, new interior, new KX 145 720 channel radio, christen inverted oil. Contact Dan McDonald, Box 279, Minot, N.D. 58701, Tel: 838-8767 or 852-4092.

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FOR SALE: Piper Super Cub 1952, PA-18-125, 500 TT, 77 annual, w/wo Sorenson spray system. Cal Herb White, Bottineau, N.D. 701-228-3173

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FOR SALE: 1967 Skylane, full IFR, DME, wing leveler, 2200 hours TT, 600 SMOH, contact Bill Strand, 744 Oak St., Fargo, N.D. 58102

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FOR SALE: 1971 Cessna 401, full IFR, 400A auto pilot, AVQ-47 Radar, full deice; 1977 Beech Sierra, collins Micro radios. contact Henry Brekhus, Executive Air, Box 2273, Bismarck, N.D. 58501 or call 701-258-5024

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FOR SALE: 1976 Cardinal 177, 600 TT, 300 NAV/Com, 400 Marker Beacon; 1969 Cessna Skylane, 2900 TT; 1963 Cessna 205, 3100 TT; 1976 Citabria 120 TT; 1975 Cessna Skyhawk II, 1850 TT; 1977 Skyhawk, 300 TT; 1969 Navajo 3400 TT; 1975 S2R Thrush 425 TT; 1967 Cessna 310L 550 SMOH; 4200 TT; 1977 Commuter 150 290 TT; 1977 Piper Lance, 107 TT; 1977 Piper Arrow 45 TT; 1968 V-35A Bonanza 2050 TT, 1050 SMOH; 1975 Pawnee 385 TT; 1957 Skylane 3000 TT; 1977 Weatherly 201C 125 TT; 1976 Cessna 150 1080 TT; 1973 Cessna 150 1780 TT;

North Dakota Aeronautics Commission
Box u
Bismarck, North Dakota 58505

1975 Cessna 150 1800 TT; 1977 Cessna XP 400 TT; 1974 Navajo like new; 1978 Piper Warrior 15 TT 1977 Piper Brave; 1974 Cherokee Six 800 TT; 1978 Arrow. Contact Jamestown Aviation, Inc., Box 427, Jamestown, N.D. 58401 or call 701 - 252-2150

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FOR SALE; Merlin IIB, Fresh engines, only 2200 TT, complete professional Collins pkg; 55 Brite, dual RMI's, M4C, Dual PN-101's, recent paint & int.; 77 Turbo Seneca II, full deice, club lounge int.; 74 Aztec 1200TT, full IFR, 3xis; 68 Super cub 100 SMOH, recent cover; 77 Hawk XP 90 TT; 62 Comanche 250 fuel injected, 250 SMOH; 69 RSTOL Turbo PA-30, 250 SMOH, new paint & int. 76 Scout 45 TT; 54 Pacer 150 HP; 66 Twin Comanche 0 SMOH; 70 Turbo Navajo Executive Int, full deice; 77 Turbo Arrow; 76 Mooney; 74 Warrior 950 TT; 77 Weatherly 201C FTO; 68 Pawnee 235; 75 Brave 0 SMOH. Over 30 new and used aircraft to choose from. Call Commander Aviation Corp. 701-223-6862 or 223-3388 nites.

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FOR SALE: 1976 T310 II, 860 TT AE, 400 Encoder, 400 DME. full deice; 1977 172 XP NAV PAC, 380 TTAE; 1977 172 Skyhawk, 360 CHAN, Transponder, ADF, 400TT; 1977 C210II, 75 TT, NAV PAC, 400 DME, 400 Encoder, 400B Auto pilot, R NAV; 1975 Centurion II, 925 TT, NAV PAC, KN 65 DME,A/P; 1976 C-150 Commander, 1000 TT, 300 NAV COM. Contact OK Aviation, Municipal Airport, Bismarck,ND 58501 or call 701-258-5610

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