



CENTURY 21
AUTOPILOT
FLIGHT SYSTEM
PILOT'S OPERATING HANDBOOK

68S805
FEBRUARY 1, 1982

FACTORY SERVICE CENTERS

Century Flight Systems, Inc. has established Factory owned and operated Customer Service Center. The personnel operating this Center are dedicated to providing Customer Satisfaction with our products.

Besides providing technical consultation, Service Center personnel also provide competent repairs and spares support to our dealers as well as direct customer in or out of warranty repair service. The location of our Factory Service Center is:

Municipal Airport, Mineral Wells, Texas

Product Support
Telephone: (940) 325-2517

If any time you need service at the Center please call for and arrange for an appointment. This way, we can minimize shop repair time.

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LOG OF REVISIONS

REVISION A	Added information on NSD-360A slaving operation; pages 13,17, and front cover.	1 July 1980
REVISION B	Corrected printing errors; pages 10, 13, and 21.	1 Feb. 1982

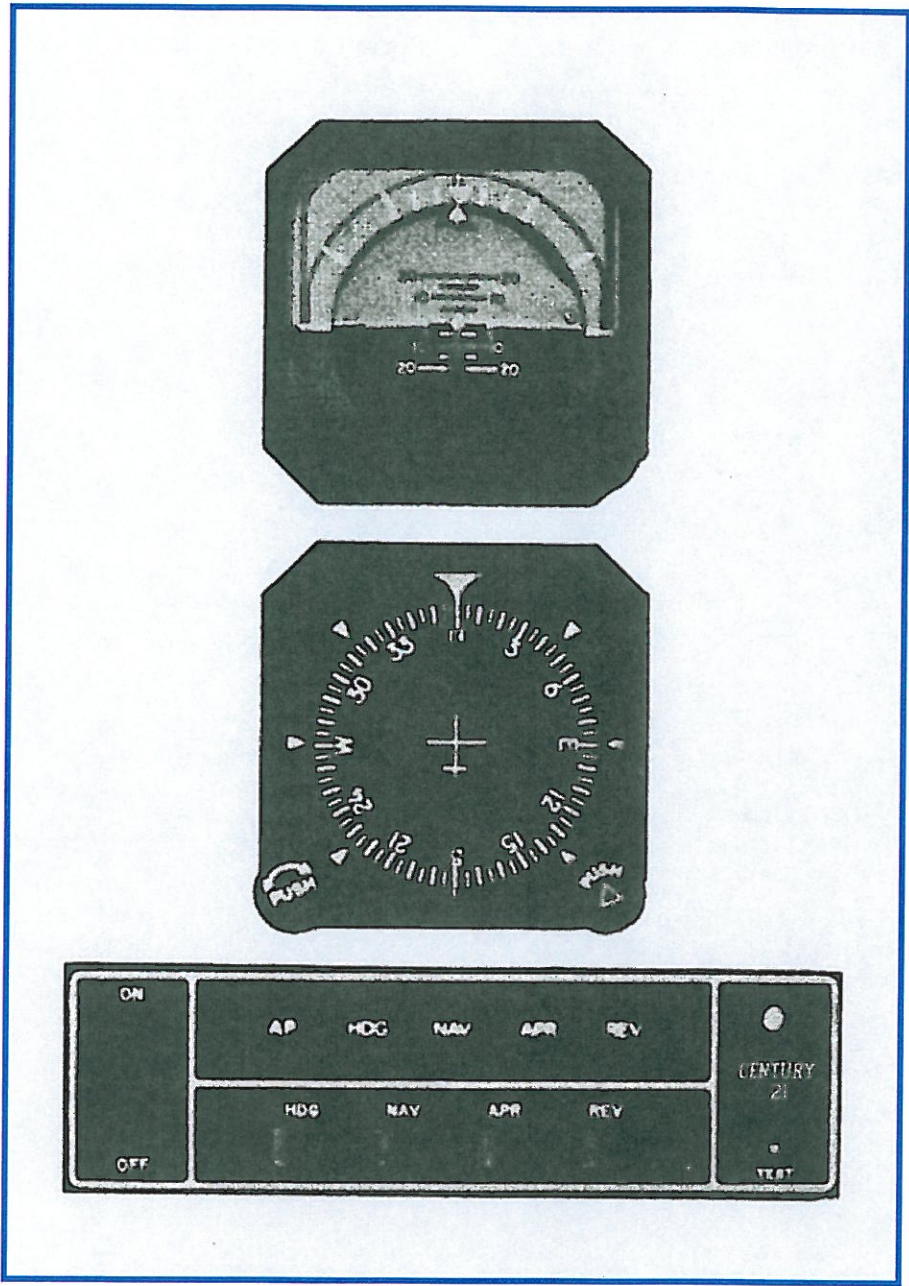
FOREWORD

The Century Flight Systems, Inc. Century 21 Autopilot is an advanced General Aviation Flight Control System utilizing "State of the Art" electronic techniques.

In this handbook we have detailed the features, functions and general operating instructions of the Century 21 autopilot System.

May we suggest that you do two things:

1. Read this handbook and your Airplane Flight Manual Supplement. This hand book presents general operating procedures. Each aircraft installation has an Airplane Flight Manual Supplement or Autopilot Handbook that contains FAA approved flight procedures and operating limitations in that particular model aircraft. The appropriate AFM Supplement is a document which must be aboard U.S. Registered Aircraft with the autopilot installed.
2. Spend some VFR time with the equipment to become familiar with its operation so that you may have the full benefit of its capabilities.



THE CENTURY 21 QUTOPILOT



FEATURES

The Century 21 Autopilot

This autopilot uses an artificial horizon in combination with a directional gyro or an **NSD-360A** Heading System (**HSI**). It may optionally use other compatible heading systems.

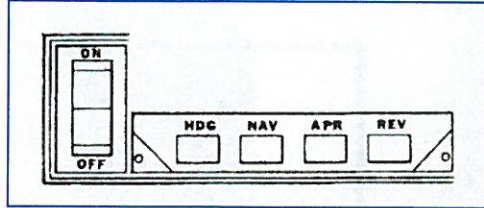
The sensing of these instruments provides roll stability and heading command through the ailerons.

An outstanding feature of the Century 21 Autopilot is the rate based inner loop which provides soft rate controlled response to commands while having high recovery response to just upset.

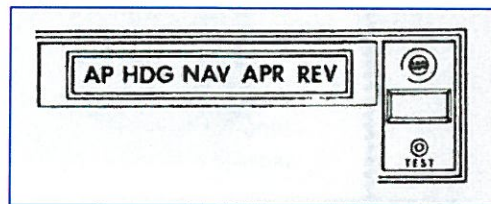
Automatic soft navigation mode and bank limiting for smoother enroute tracking and station passage is initiated by internal logic circuits.

CENTURY 21 OPERATING CONTROLS

The Programmer **ON-OFF** rocker switch and pushbutton switch placards are lighted and dimming is provided by the control panel light dimmer switch.

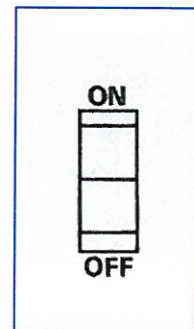


The Annunciator light intensity is controlled automatically by a self-contained ambient light level sensor; this feature provides optimum Annunciator light level for all cockpit lighting conditions. The Century 21 Autopilot is activated with the Aircraft master switch and operates in a low power state until autopilot operation is desired. Mode selection is made by pushing the desired mode switch on the Programmer. The selected mode will be illuminated on the Annunciator. A **TEST** pushbutton switch is provided to check the valid operation of the Annunciator lamps.



AUTOPILOT ON-OFF – Autopilot engage is accomplished by pressing the momentary **ON-OFF** rocker switch on the left side of the Programmer. The autopilot may be engaged in any pre-selected mode.

In **NDG** mode the aircraft will track the heading selected on the **DG** or **HSE**. In **NAV**, **APR**, or **REV** modes the aircraft will intercept and track any properly programmed radio-defined course.



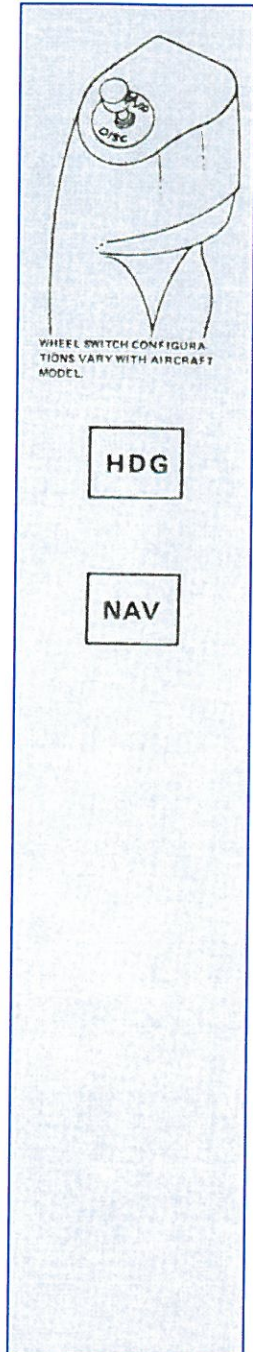
The autopilot may be disengaged by pressing the momentary **ON-OFF** rocker switch on the programmer, by pressing the **AP DISC** switch on the control wheel, if installed, or by interrupting power at the Aircraft Master switch. Disengagement causes the **AP** annunciator to flash for 5 seconds.

LATERAL OPERATING MODES

HEADING – In **HDG** mode the autopilot will capture and hold the heading selected on the **DG** or **HSI**. **HDG** annunciator will illuminate.

NAVIGATION – In **NAV** mode has an automatic 45° **VOR-LOC** intercept angle and selected angle intercepts when equipped with the **NSD-360A** or other **HSI**. **NAV** annunciator will illuminate.

When executing an intercept, the rate at which the aircraft is closing upon the selected radial is determined by the computer and at the proper time an on-course turn is initiated. After course interception, “window logic” circuits observe that the course error is within $\pm 11^\circ$ and the radio deviation is less than $\pm 10\%$ or scale. This logic initiates crosswind correction, radio gain reduction, lowers the maximum roll rate to 2.5° per second and limits bank angles to 8° to produce an automatic “soft” navigation mode. The system will remain in soft mode during station passage. However, if a new course which requires re-intercept is selected, the soft mode will unlock and the intercept sequence will re-occur.



HEADING SYSTEMS

In systems equipped with a **DG** the autopilot heading bug must be set to match the selected **VOR** radial.

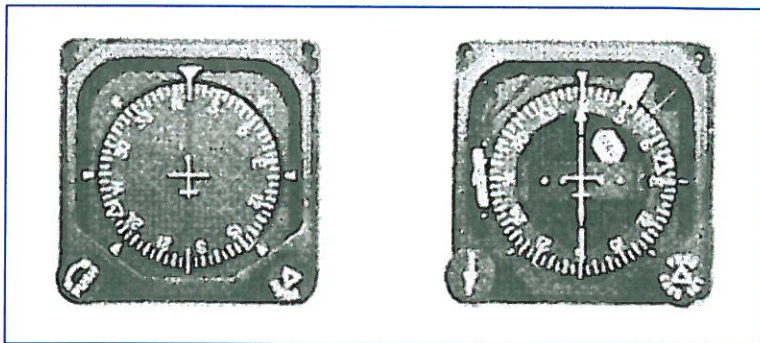
In systems equipped with an **NSD-360A** or other **HSI** instrument, the heading bug is disabled when in the **NAV**, **APR** or **REV** modes. In these modes the azimuth information to the autopilot is provided by the radio course pointer.

NOTES

In systems equipped with an **NSD-360A** or other **HSI** always set the radio course pointer to the Front Course Inbound Heading when operating in the **APR** or **REV** mode.

In systems equipped with a **DG**, always set the heading bug to the final approach heading to the airport.

See section on operating techniques for additional operating instructions for the **NSD-360A**.

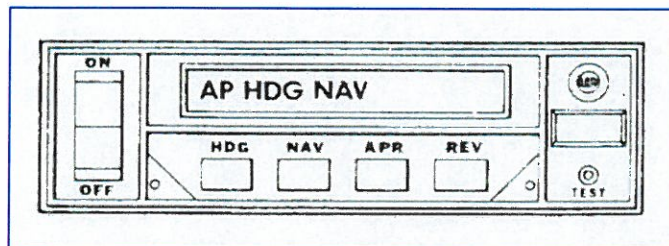


SELECTED ANGLE INTERCEPT

In Systems equipped with an **NSD-360A** or other **HSI**, a selected angle intercept function is available while operating in the **NAV**, **APR**, and **REV** modes.

Selected intercept is initiated by performing the following steps:

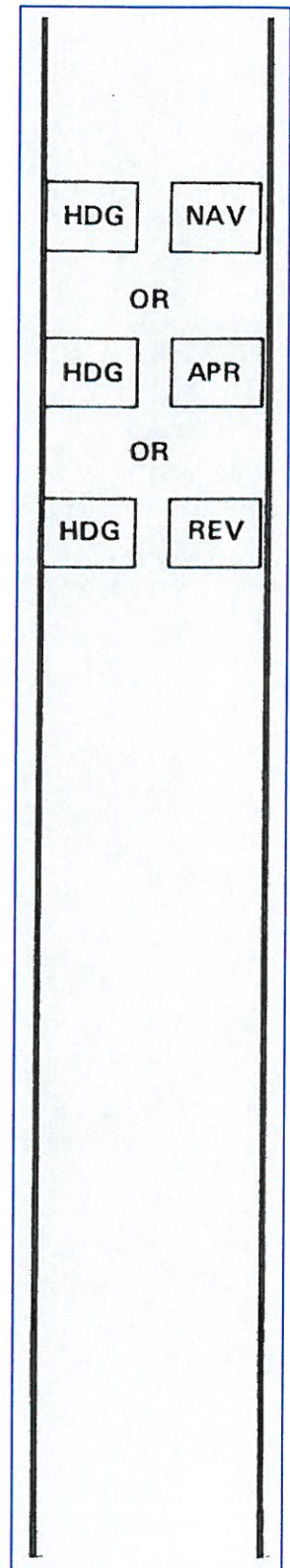
1. While operating in the **HDG** mode, set the course pointer to the desired radial.
2. Set the heading bug on the **NSD** to the desired intercept heading.
3. Press the **HDG** and **NAV**, **HDG** and **APR** or **HDG** and **REV** mode buttons simultaneously.



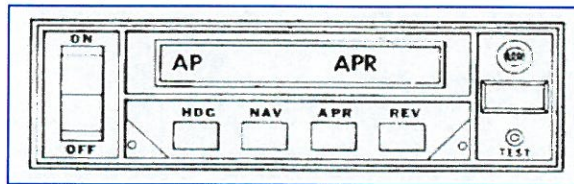
Both **HDG** and the selected lateral mode will now illuminate on the annunciator. As the aircraft begins its on course turn, the **HDG** annunciator will extinguish indicating that the system has transitioned from heading to radio and is now receiving azimuth input from the course pointer.

NOTE

If valid radio signal is lost after initiating a selected intercept, the applicable navigation mode annunciator will flash and the autopilot will remain in the **HDG** mode.

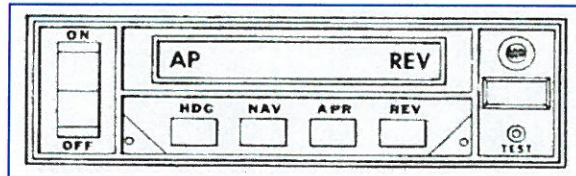


APPROACH -- The **APR** mode provides automatic 45° **VOR-LOC** intercept angle and selected angle intercepts when the system is equipped with an **NSD-360A** or other **HSI**. The intercept, crosswind and tracking sequences are similar to those described in the **NAV** mode of operation except that softening is delayed for 90 seconds after intercept and bank angle limits are reduced to 12° at 3.6° per second maximum roll rate.



REVERSE (Black Course) – The **REV** mode is for use in tracking the localizer back course Inbound and front course Outbound.

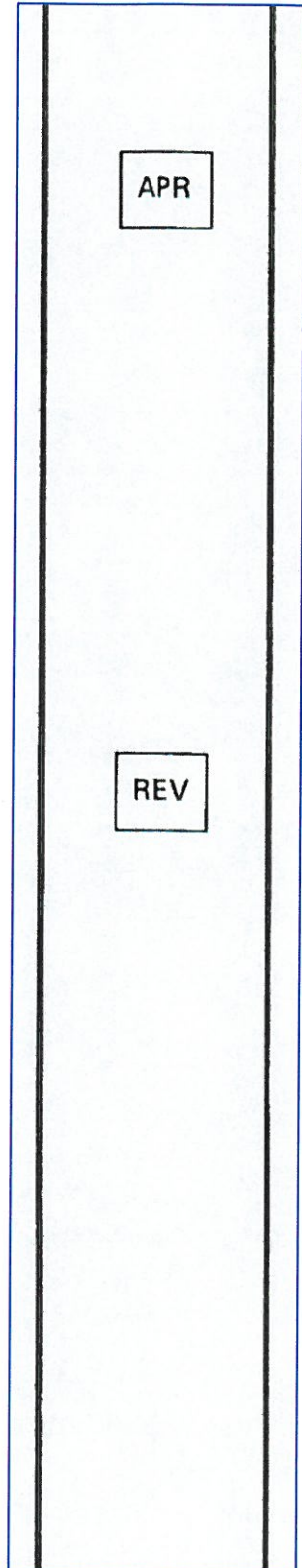
45° automatic intercepts, selected angle intercepts, crosswind correction and tracking are as described in the **APR** mode except that response to radio signals is reversed.



NOTES

When using an **NSD-360A** or other **HSI**, always set the course pointer to the Inbound front course localizer heading.

When using a **DG**, always set the heading bug to the final approach heading to the airport.



RADIO AND SYSTEM WARNINGS

The **Century 21** is designed to operate in conjunction with **VOR** indicators which provide **NAV** Flag information on an external output terminal available to the autopilot logic circuits. When such information is available the following radio and system warnings are provided.

If the radio navigation becomes invalid during selected angle intercepts, the appropriate **NAV/APR/REV** Annunciator will flash and automatic mode switching from **HDG** to the armed navigation mode will be inhibited.

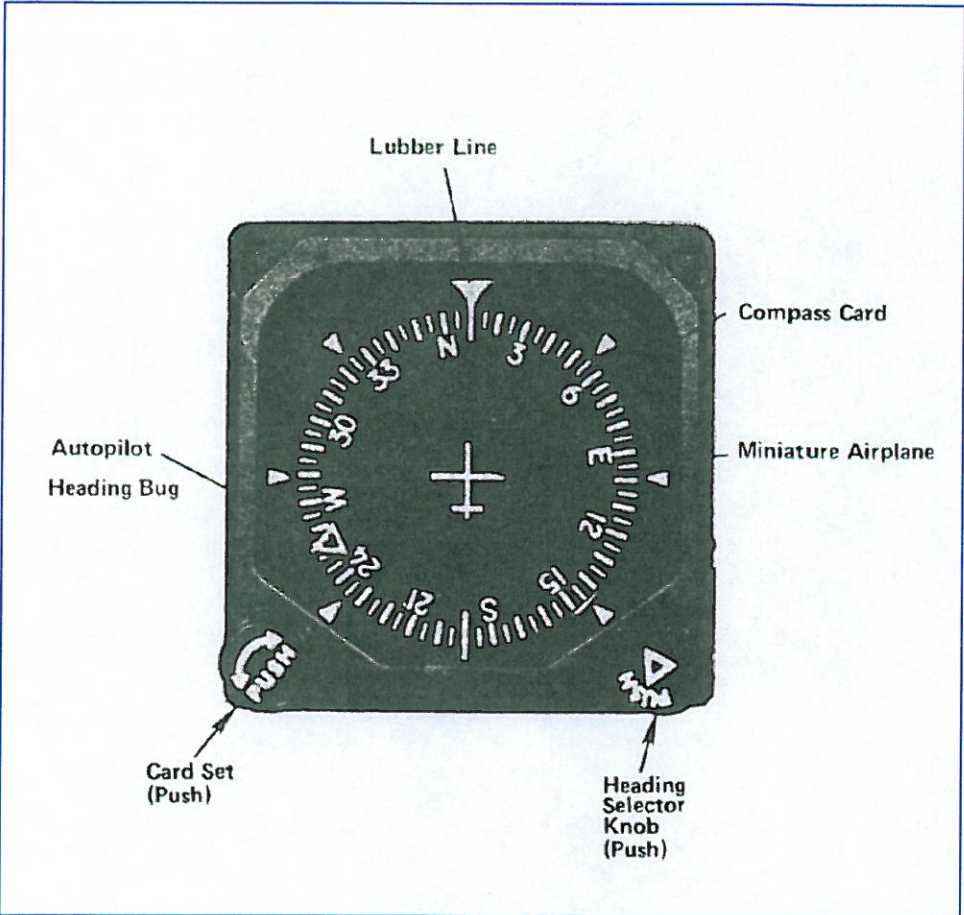
If the radio navigation information becomes invalid during a standard intercept, or at any time after the selected radio course has been intercepted, the appropriate **NAV/APR/REV** Annunciator will flash; however, the system will remain in the original radio mode.

NOTE

If the **Century 21** is installed in combination with converters that do not provide **NAV** flag signals to the autopilot, these interlock and warning functions are not present in the system.

LOW VOLTAGE – When the aircraft bus voltage provided the system falls below the minimum required for reliable system function, any mode annunciator not already illuminated will flash.

AP DISENGAGEMENT – Anytime the autopilot is disengaged the **AP** annunciator will flash for approximately 5.0 seconds, then remain off.

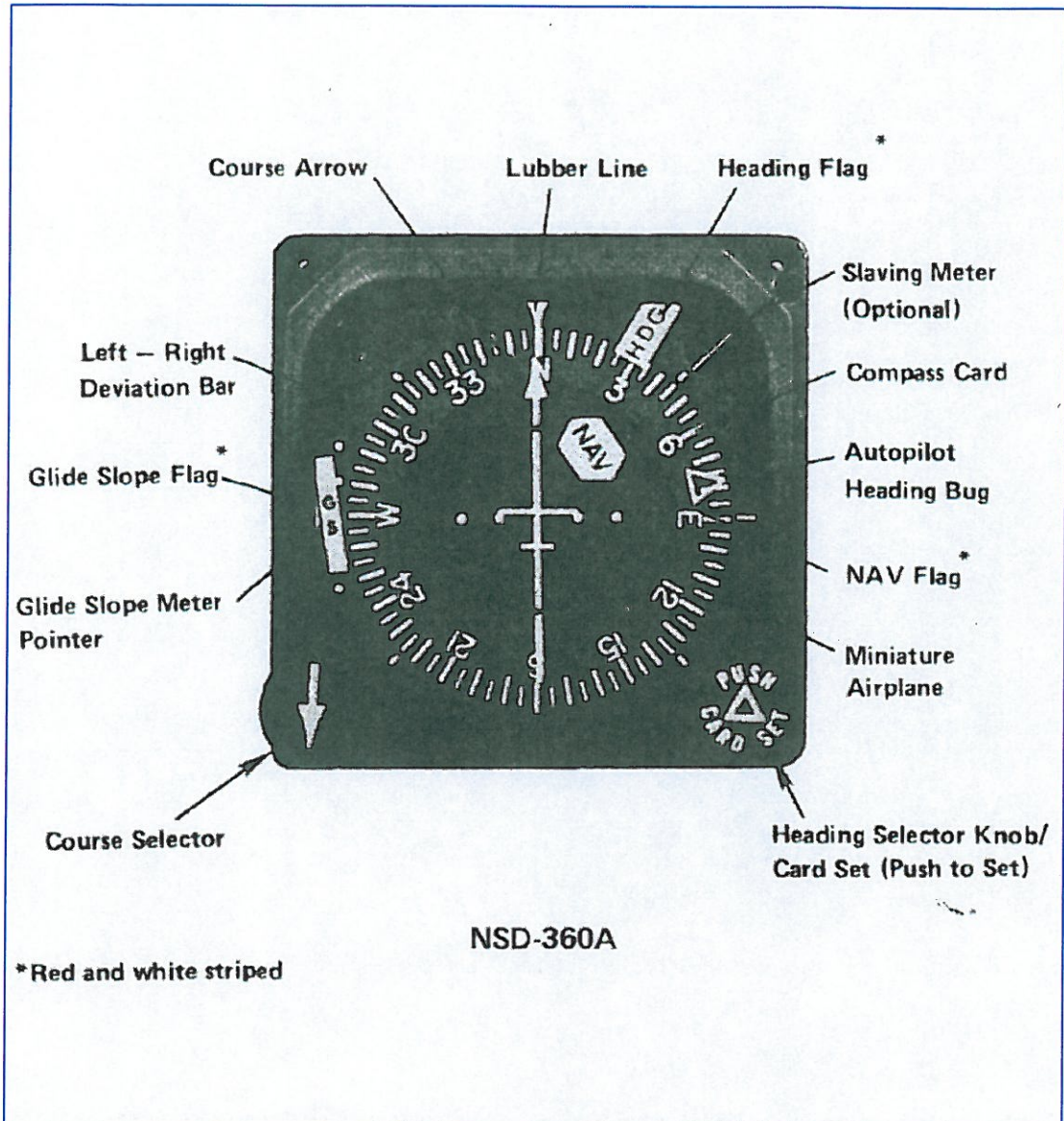


DIRECTIONAL GYRO

DIRECTIONAL GYRO

The **Heading Selector DG** replaces the standard directional gyro and provides a fully visible heading indicator around the normal **DG** opening. The **DG** dial is marked in 5° intervals and numbered each 30° around its azimuth. A center index is provided at the top to align selected headings. Additional indices are located each 45° to facilitate rapid turn selection without mental arithmetic. Any heading may be selected, either before or after engagement, and turns up to 180° may be programmed directly, either right or left. If the heading indicator is rotated beyond 180° from the **DG** card heading, the heading selector will command a reversal in bank to reach the resultant selected heading in the shortest direction.

The **DG** card is normally set to the magnetic compass with the caging knob on the left in the usual fashion, while the heading selector indicator is rotated by the heading knob on the right. Direction of rotation of both the knob and indicator commands the same direction of turn.



NSD-360A AND OTHER COMPASS SYSTEMS

The Century 21 autopilot may be optionally equipped with the Century Flight Systems, Inc. **NSD-360A** or other approved **ARINC** compass systems. The explanation which follows will be based on the **NSD-360A**; however, the principles will apply equally to the compass systems of other manufacturers provide the differences in design, features and concepts are ascertained and allowed for, such as slaving, knob location, size, etc.

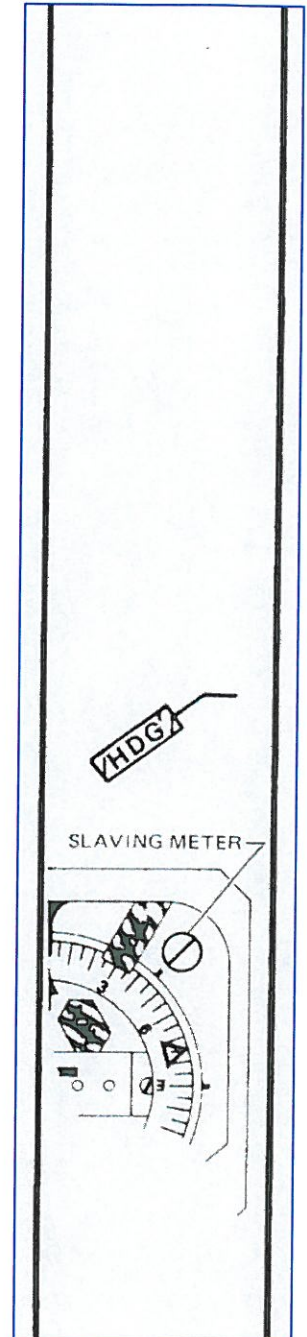
The **NSD-360A** (Navigation Situation Display) is an integrated **HSI** instrument combining an air driven gyro and an electrically servo'd heading card with **VOR/Localizer** and Glide Slope Information.

CAUTION

The **NSD** has an optional slaving feature that requires initial heading setting on start-up. Subsequent resetting of the heading card, required manually on non-slaved versions, is automatically accomplished with the slaved version.

Proper heading synchronization must be verified on both non-slaved **NSD-360A** units. This is accomplished by comparing the heading displayed under the lubber line with the magnetic compass.

The **NSD-360A** incorporates a heading warning flag to warn of loss of either air or electric power. Appearance of the flag during flight should be sufficient grounds to question the validity of the displayed heading. In slaved versions, the slaving meter should oscillate about a 45° point to show that the slaving circuits are accomplishing their function. Should the needle remain motionless or either vertical or horizontal for an extended period (two minutes) in level flight, the heading should be manually set using the magnetic compass and the performance of the heading card observed. If this condition persists, set the slaving mode switch to **SL#2** or free gyro. In free gyro mode, the instrument must be periodically reset to manually counteract the effects of gyro precession.



NOTE

Do not set heading card when turning as the magnetic compass and magnetic flux detectors in slaved systems are not reliable references when the aircraft is banked.

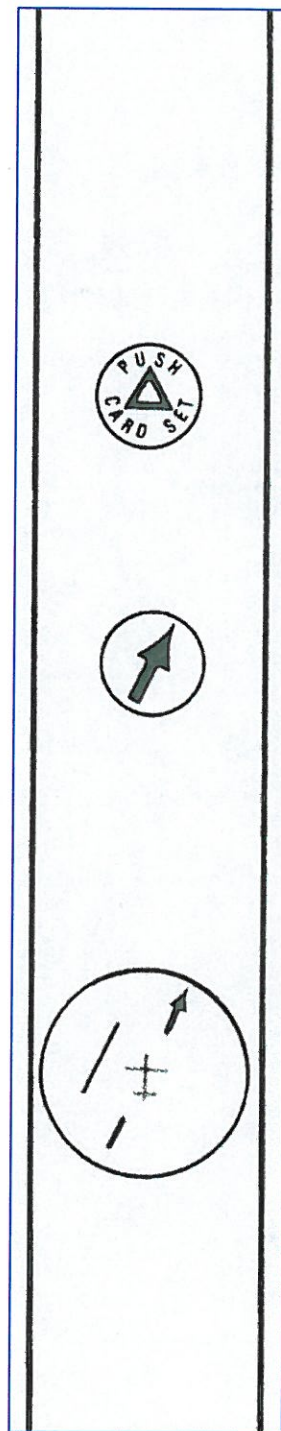
NSD-360A CONTROLS

The heading selector/card set is used to move the heading bug relative to the heading card. It is also used to set the heading card to the aircraft heading by pushing in and rotating card. When setting has been accomplished the knob is released. The heading selector should not be pushed in when setting the heading bug.

The course selector knob is used to adjust the autopilot course selector arrow to the desired course. Selection of the autopilot course automatically sets the internal **VOR** resolver to the identical **VOR** radial. Readout of **VOR** left-right information is made by observing the center segment of the course arrow.

DISPLAYS

NSD-360A VOR/Localizer left-right deviation is displayed by the center segment of the autopilot radio course arrow. Note that the airplane in the center of the instrument display gives a pictorial representation of the Navigation Situation. In the illustration, the aircraft is approaching the desired radial at about 20° intercept. When operating in the **VOR** mode, the display always gives the correct display if the heading card is matched to the magnetic heading. When operating in the localizer mode, the course arrow should be placed on the **IN-BOUND** front course heading. The display will then be correct for either front course or back course.



During Back Course Approaches, the display will be inverted and the tail of the course arrow will indicate the back course heading. The Left-Right needle sensing will require turns **toward** the needle for course centerline.

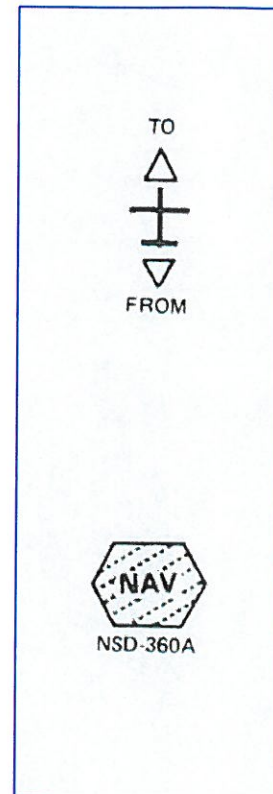
“TO” FLAG – “FROM” FLAG

The **to** and **from** flags point to the direction of the **VOR** Station. To or from is pictorially represented.

NAV WARNING FLAG

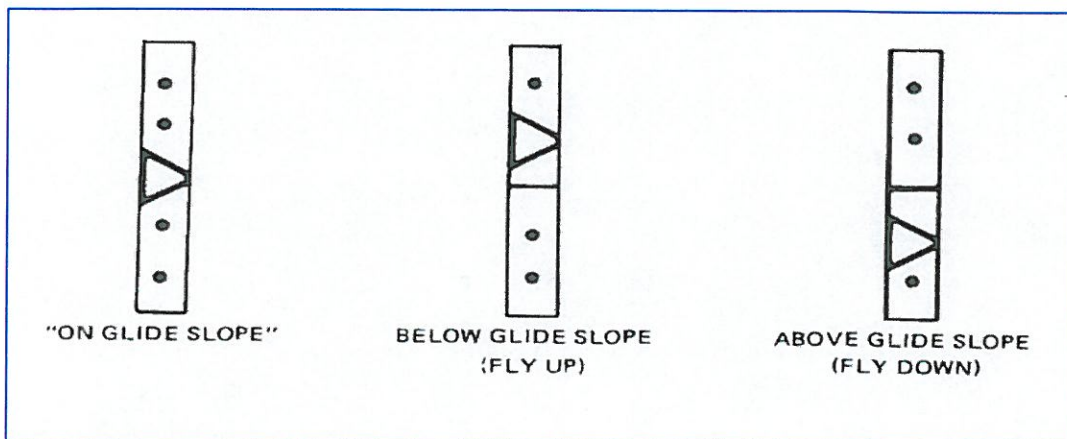
The NAV warning flag will appear if the signal being received is not suitable for **NAV**igation.

In the NSD-360A, separate “**NAV**” and “**TO-FROM**” meter movements are used. Good navigation data will be indicated in both **VOR** and Localizer mode by absence of the **NAV** Flag. In the localizer mode the “**TO-FROM**” arrows may remain out of view (depending on **NAV** converter design).



GLIDE SLOPE

The **Glide Slope** meter on the left side of the instrument displays conventional glide slope information – location of glide slope centerline is pictorially represented.



The **Glide Slope Flag** is on the left side of the instrument. It is arranged so that it will obstruct view of the glide slope meter if a glide slope signal is not available or is unsuitable for guidance.



IMPORTANT NOTICE

Because the **NSD-360A** incorporates an integrated course/left-right display and **OBS** resolver, the use of a **NAV-1/NAV-2** selector switch would involve complex operational techniques that would add confusion in moments of stress and its installation is therefore not encouraged.

CENTURY 21 OPERATING TECHNIQUES

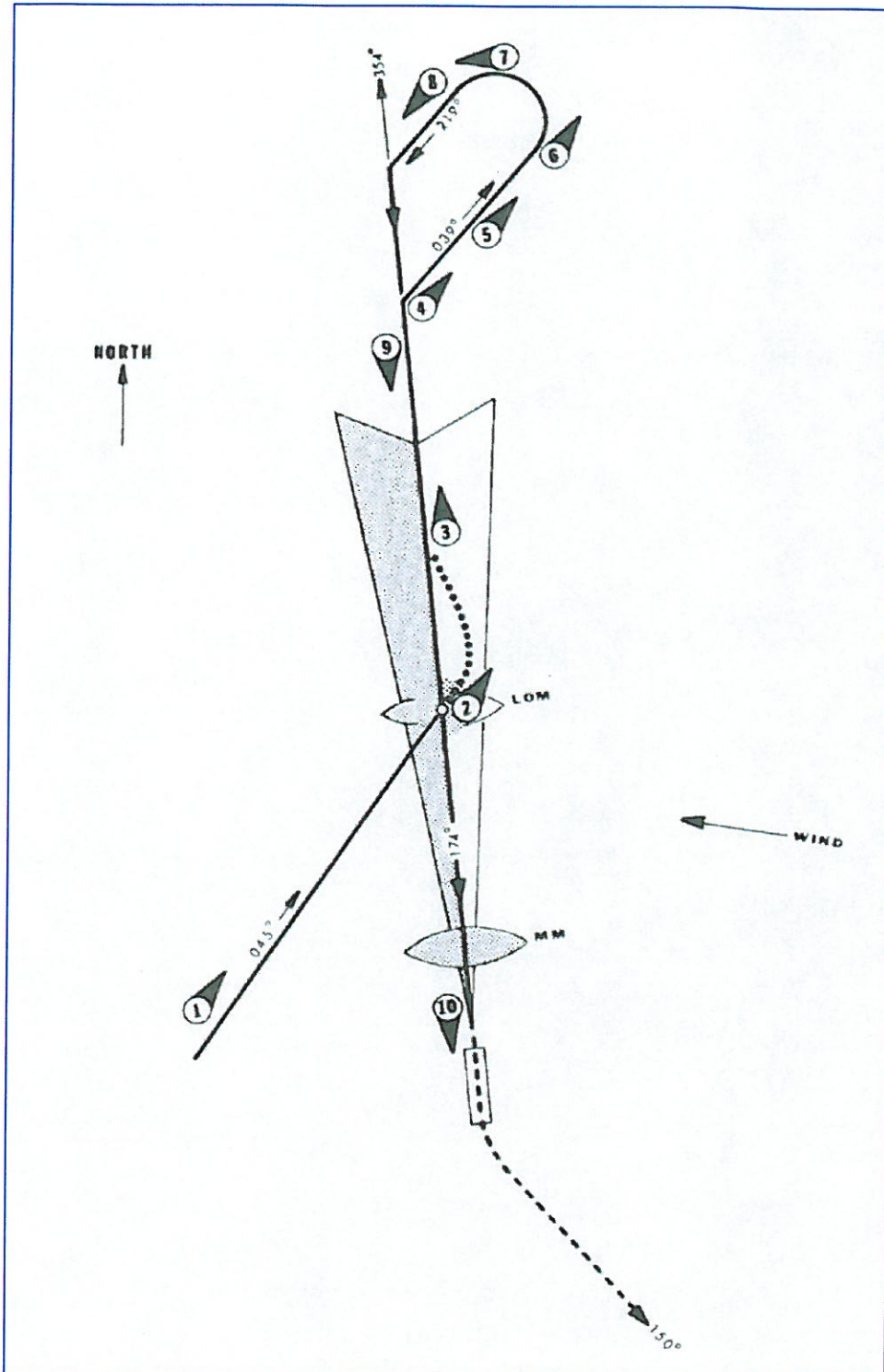
In the pages that follow, we have included techniques for:

- Localizer Approaches
- Localizer Approaches
- VOR Approaches
- VOR Navigation

The photographs depict the Navigation Situation at the indicated position as seen on the **NSD-360A**. The techniques are equally applicable to other Integrated Compass Systems (PN101, KPI-550, Etc.). The techniques are also applicable to the 52D254 DG, provided it is understood that the DG Heading Bug and OBS must be set separately to achieve the desired results.

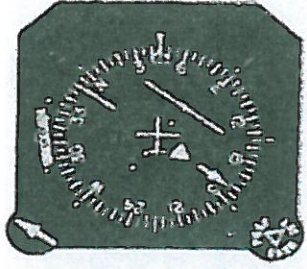
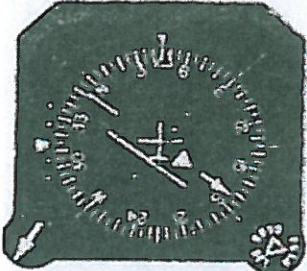
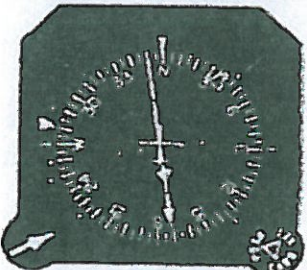
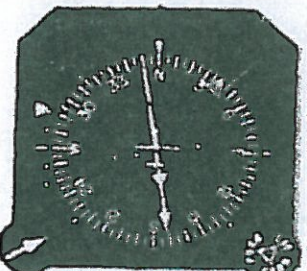
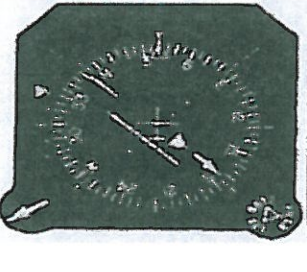
CAUTION

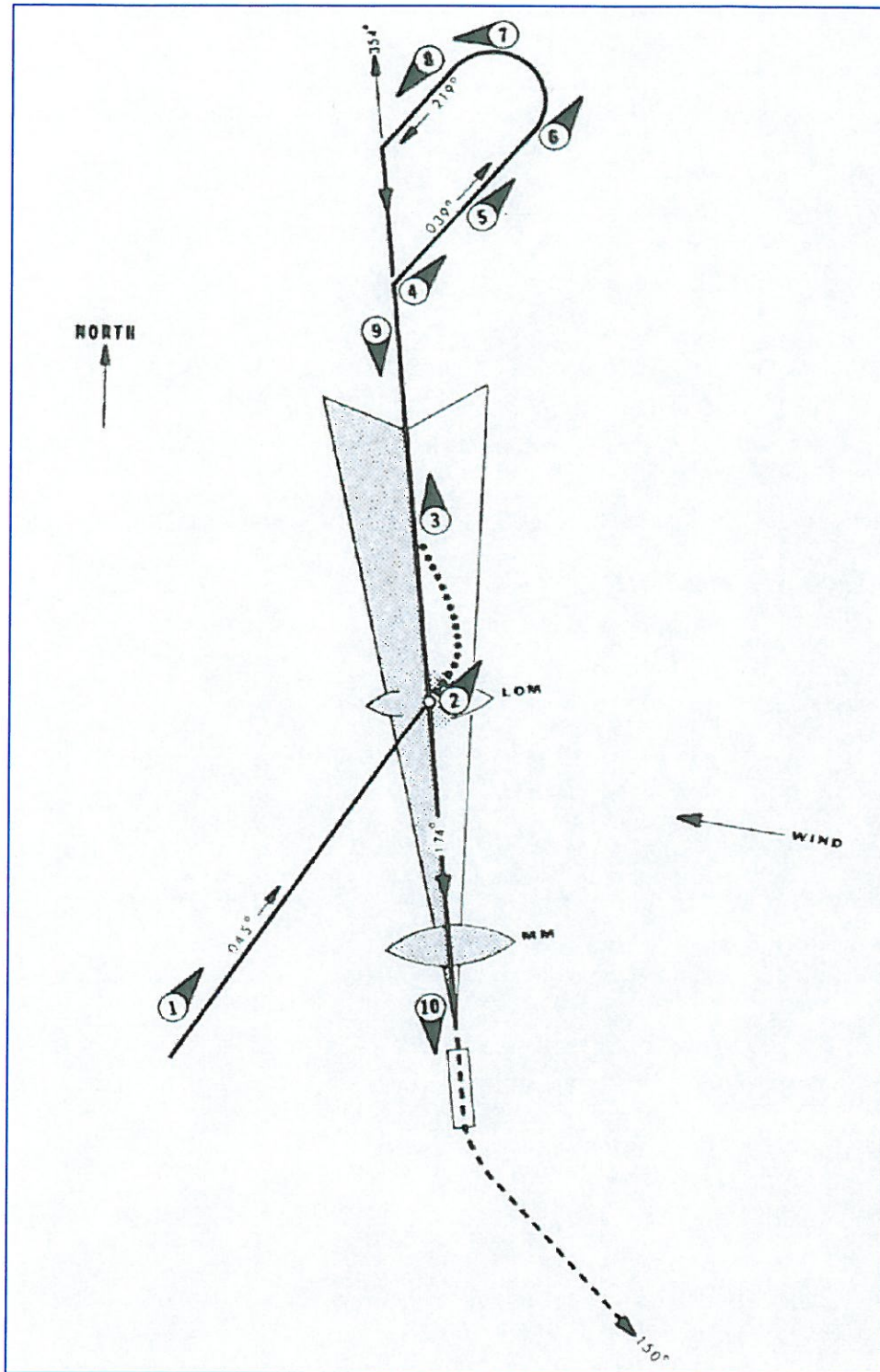
When electrical power is first applied to the **NSD-360A** instrument, the compass card may rotate or "slew" rapidly. This is **NOT** an indication that the compass system is orienting itself to the proper magnetic heading. The proper heading orientation must be verified and set prior to takeoff and should be verified prior to approach to landing using the magnetic compass.



LOCALIZER (LOC) APPROACH




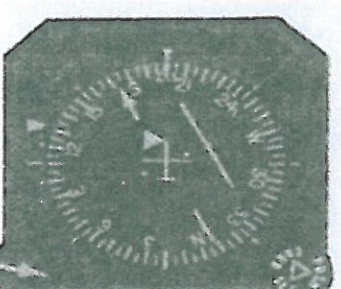
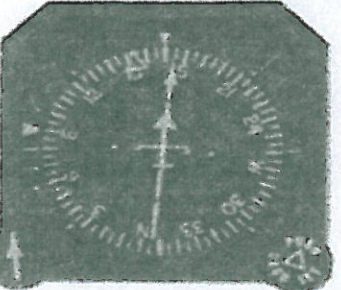
LOCALIZER (LOC) APPROACH

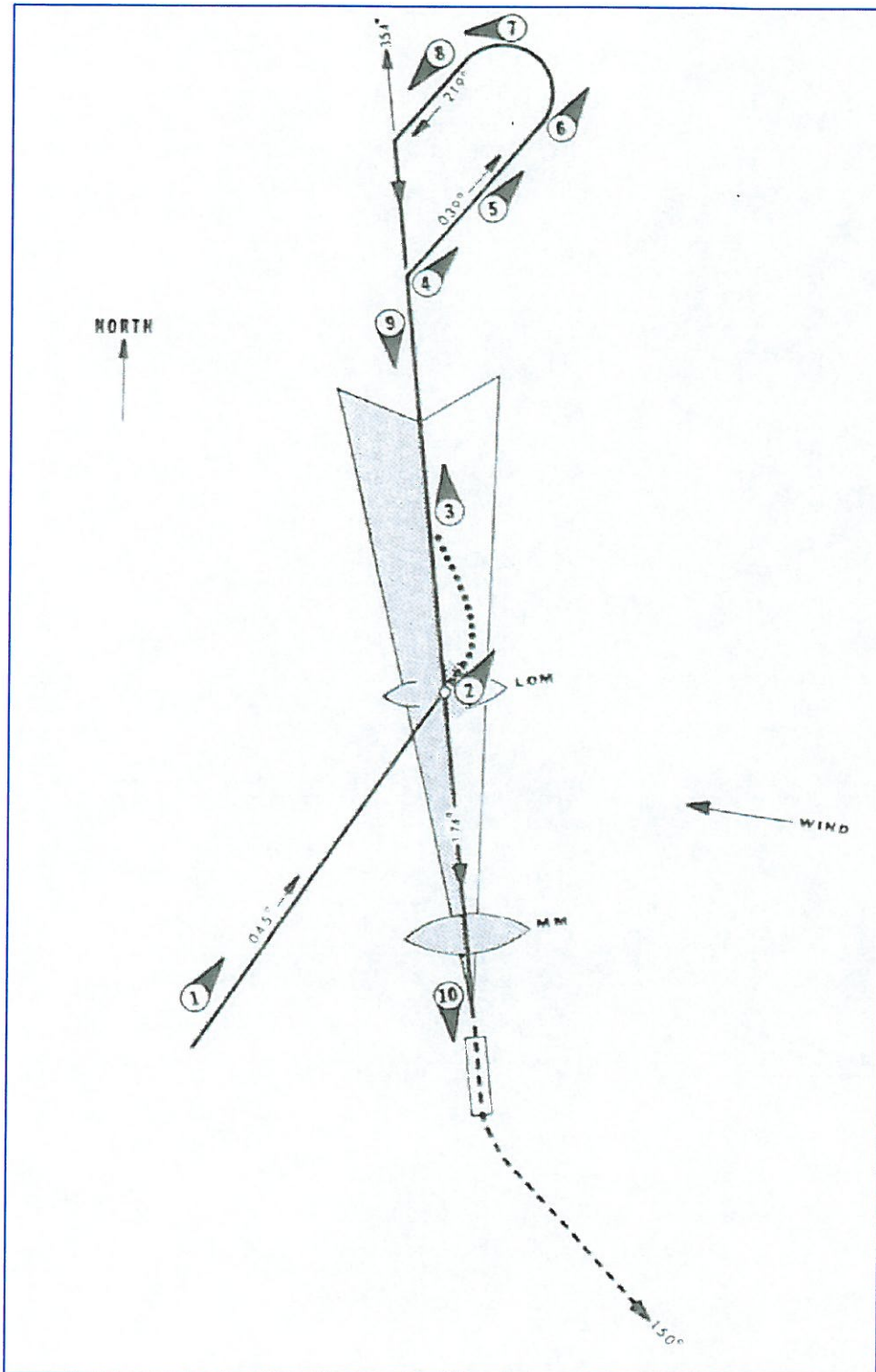
PSN	NSD-360A	MODE	REMARKS
1		HDG	The localizer or ILS approach begins with a transition from the enroute structure to the outer compass locator (LOM). The HDG mode and HDG Bug is used by the pilot to select the desired heading. Aircraft altitude or rate of descent is controlled manually. The Inbound Front Course direction is selected with the course arrow.
2		REV	Upon reaching the (LOM), press the REV Button. System will intercept and track Outbound. Note: This is a good time to begin reducing speed for the approach.
3		REV	Altitude appropriate to this phase of the approach should be controlled manually. The procedures turn outbound heading may be preselected using the heading bug.
4		HDG	Press the HDG Button to begin procedure turn.
5		HDG	Proceed outbound in procedure turn until sufficient time has elapsed to assure proper re-interception.



LOCALIZER (LOC) APPROACH (CONT.)

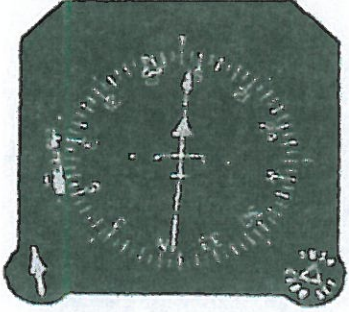
LOCALIZER (LOC) APPROACH (CONT.)

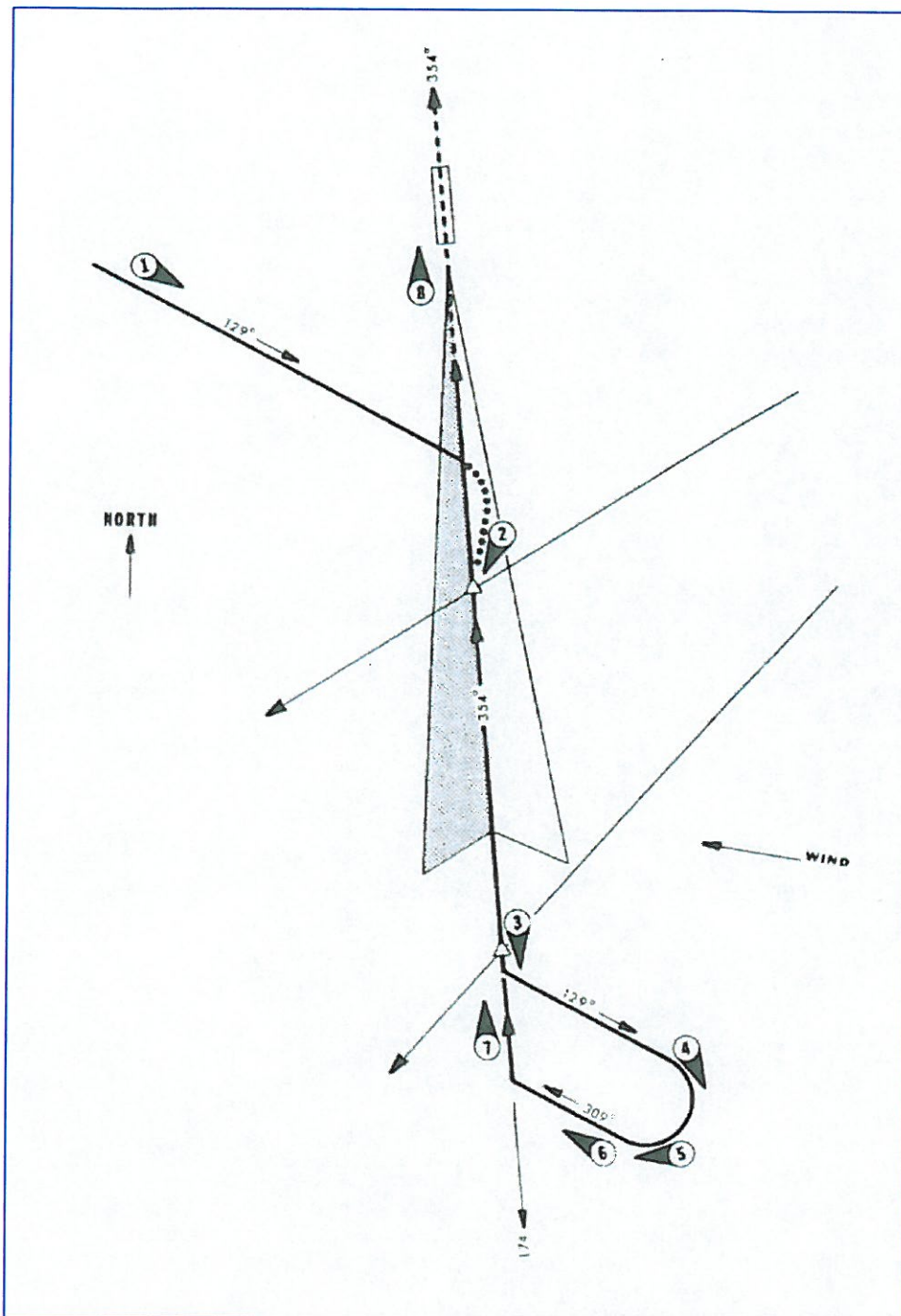
PSN	NSD-360A	MODE	REMARKS
6		HDG	Lead aircraft through procedure turn by moving the heading bug initially about three-fourths of the way around the card in the desired direction of the turn.
7		HDG	As the aircraft turns, move the heading bug to the desired intercept heading. In this case the pilot has selected 205° for a selected angle intercept.
8		APR	If a 45° intercept is desired press APR Button...system will automatically execute 45° (approximate) intercept.
8A		HDG APR	Alternate – If intercept angle other than 45° is desired, set heading bug to desired intercept heading. Press both HDG and APR Buttons simultaneously. System will remain in HDG until aircraft turns on course, then automatically switch to APR as indicated by extinguishing the HDG Annunciator. Note: The selected angle intercept is particularly useful if being vectored to the final approach course.
9		APR	After intercept, system will correct for crosswind, adjust its internal radio authority and limit bank angles. Aircraft altitude should be controlled as necessary for the approach. Missed approach heading may now be programmed.



LOCALIZER (LOC) APPROACH (CONT.)

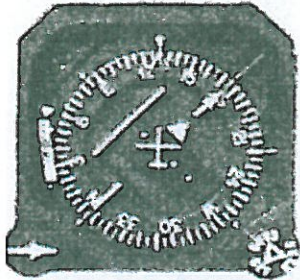
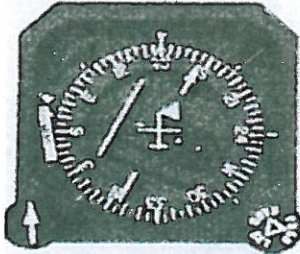
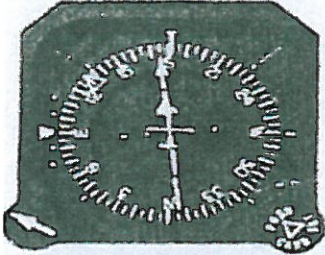
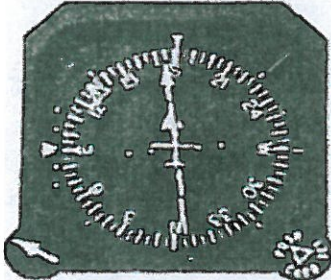
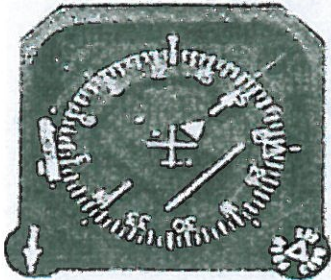
LOCALIZER (LOC) APPROACH (CONT.)

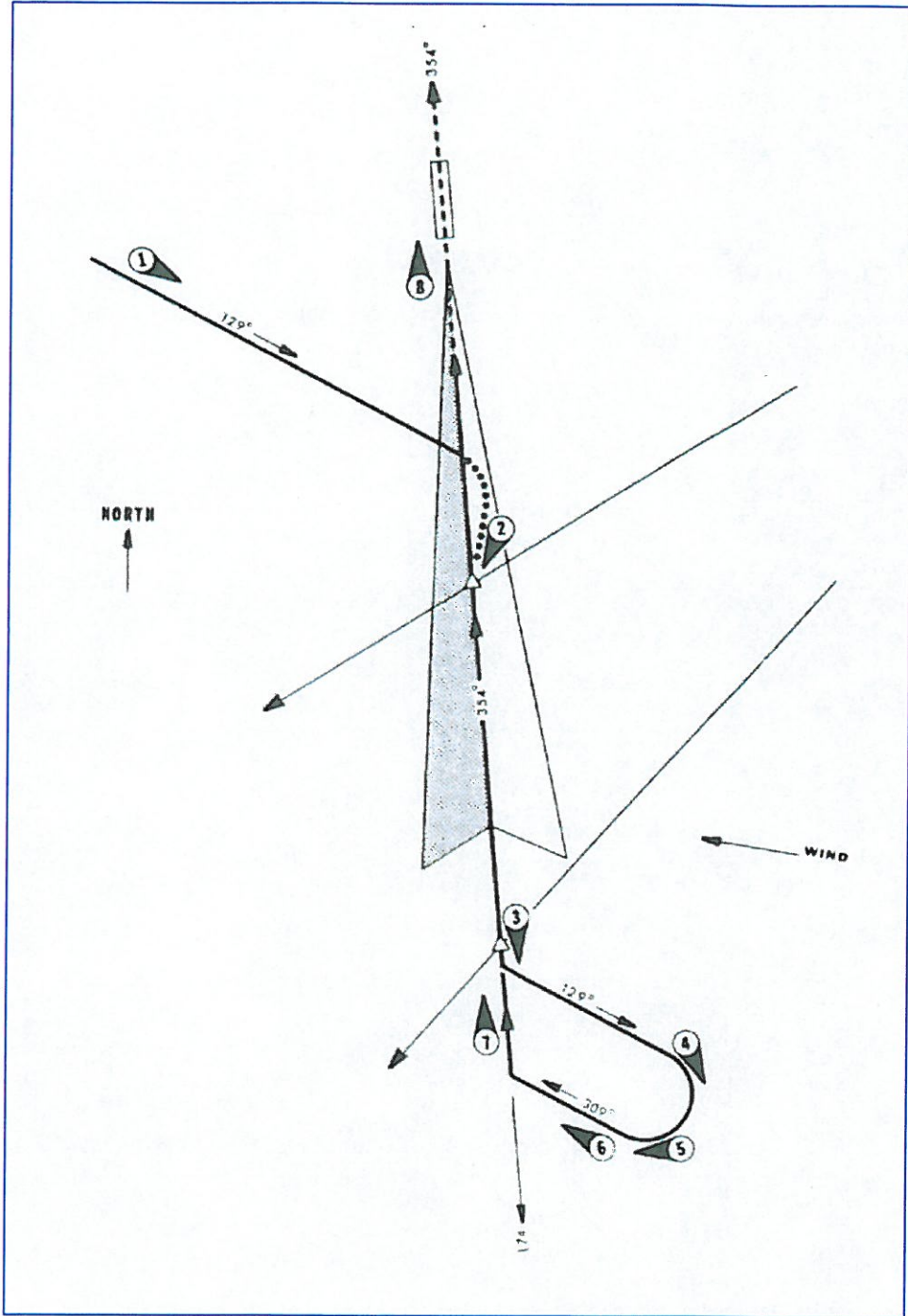
PSN	NSD-360A	MODE	REMARKS
10		HSG	<p>If missed approach is required, the following sequence is typical, see AFM Supplement for details in specific model aircraft.</p> <ol style="list-style-type: none"> 1. Fly UP manually. 2. Add power. 3. Check for positive rate of climb. 4. retract gear and flaps. 5. Press HDG to turn to required heading. 6. Adjust climb as desired.



LOCALIZER BACK COURSE (LOC BC)

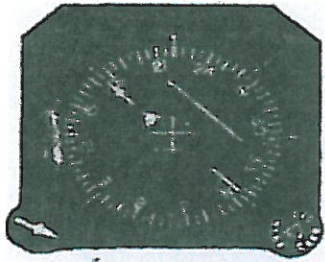

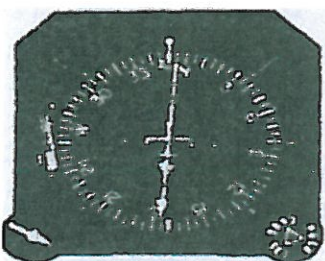
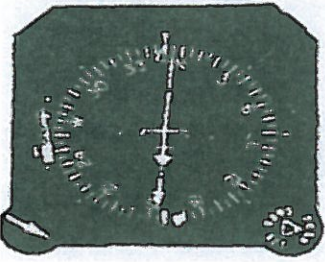
LOCALIZER BACK COURSE (LOC BC)

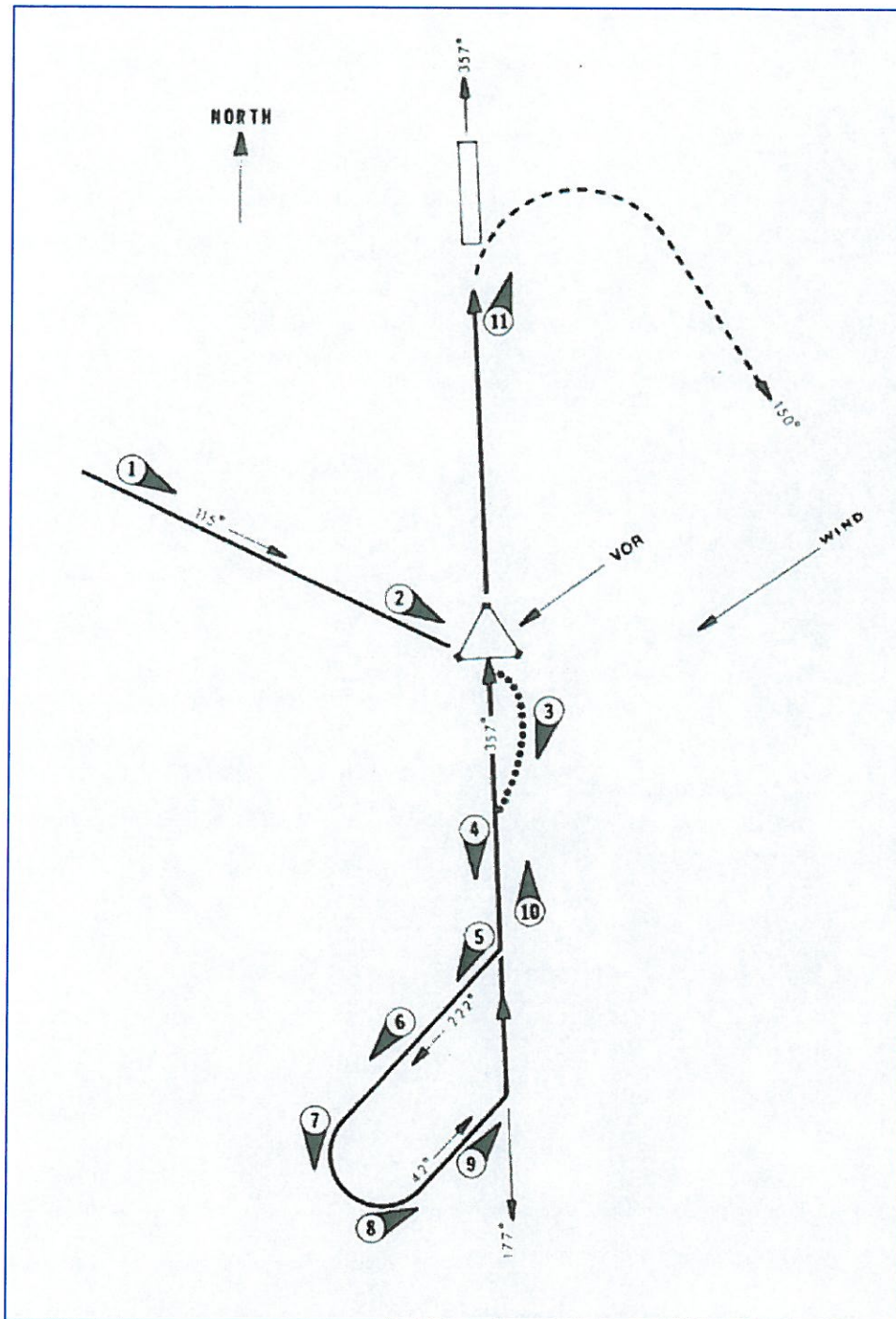
PSN	NSD-360A	MODE	REMARKS
1		HDG	<p>The LOC (BC) back course approach begins with a transition from enroute structure to an intercept with the back course Outbound. The Inbound Front Course is set on the course arrow, and a 45° intercept to the course is achieved by pressing the APR button to fly the back course Outbound. Note: The set up for this example is the same as flying the front course across the airport and continuing outbound.</p>
1A		HDG APR	<p>Alternate – If an intercept angle other than 45° is desired, press HDG and APR Buttons simultaneously – the system will follow heading bug until the intercept turn begins, then automatically switch to APR mode and extinguish the HDG annunciator.</p>
2		APR	<p>As outbound tracking begins, select outbound procedure turn heading with heading bug. Altitude should be controlled manually.</p>
3		HDG	<p>When outbound procedure turn heading is desired, press HDG Button, fly outbound for sufficient time to permit reinterception.</p>
4		HDG	<p>Lead aircraft through procedure turn initially by turning heading bug approximately three-fourths distance around the card in the desired direction of turn.</p>



LOCALIZER BACK COURSE (LOC BC) (CONT.)

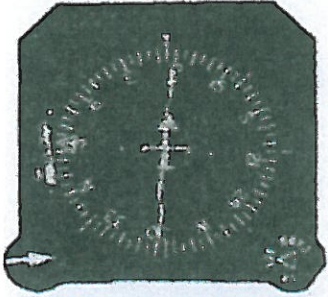
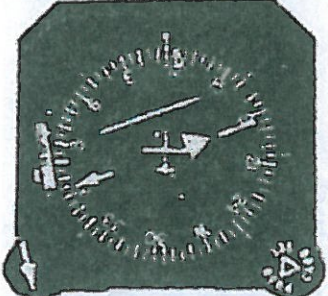
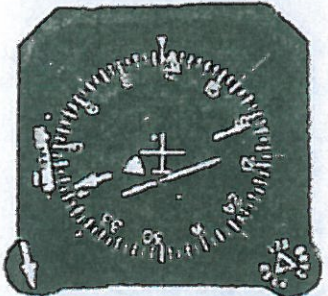
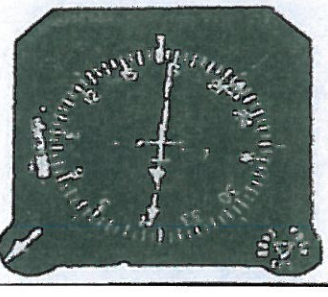
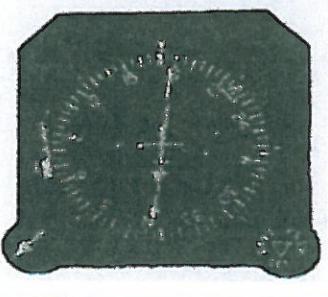
LOCALIZER BACK COURSE (LOC BC) (CONT.)

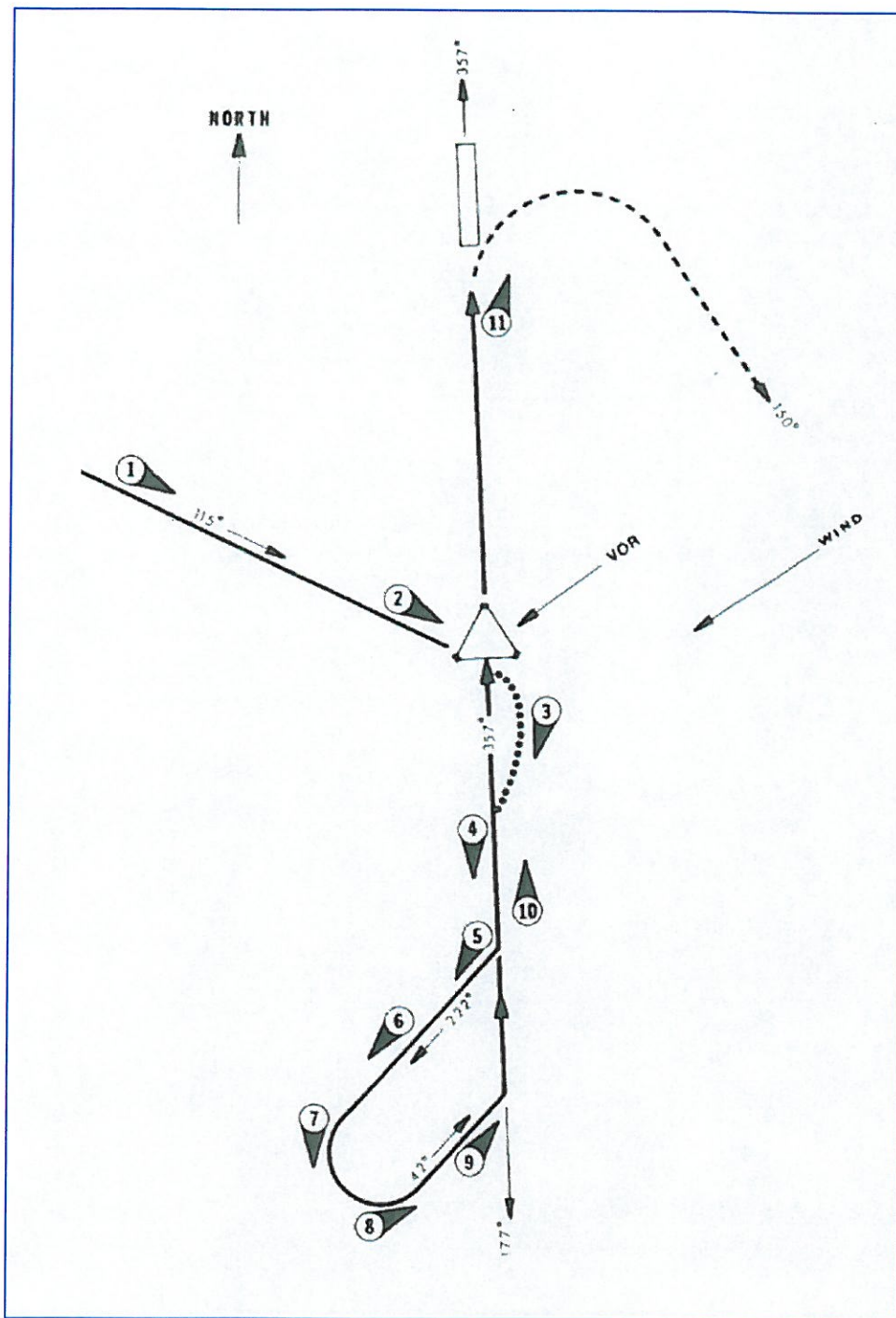
PSN	NSD-360A	MODE	REMARKS
5		HDG	As aircraft turns, set heading bug to inbound procedure turn heading.
6		HDG	As aircraft nears inbound procedure turn heading, press REV button for 45° intercept or use the selected angle intercept.
7		REV	After intercept, system will correct for crosswind, adjust its internal radio authority and limit bank angles. Heading bug may be aligned with lubber line or set to missed approach heading. When final approach or step down fix is reached, control rate of descent.
8		REV	For missed approach, conduct normal Go-around sequence.



VOR APPROACH

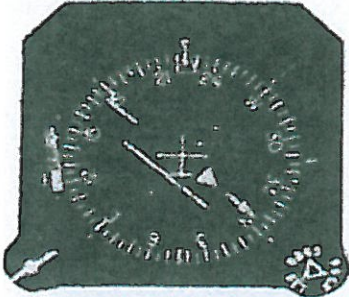
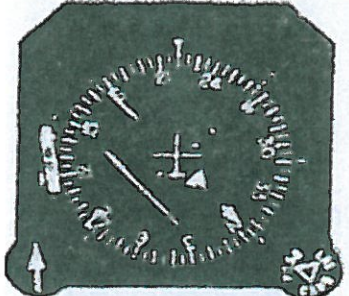

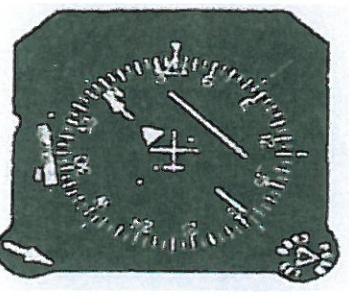
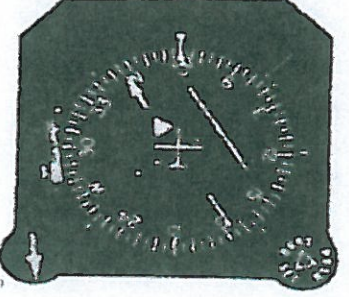
VOR APPROACH

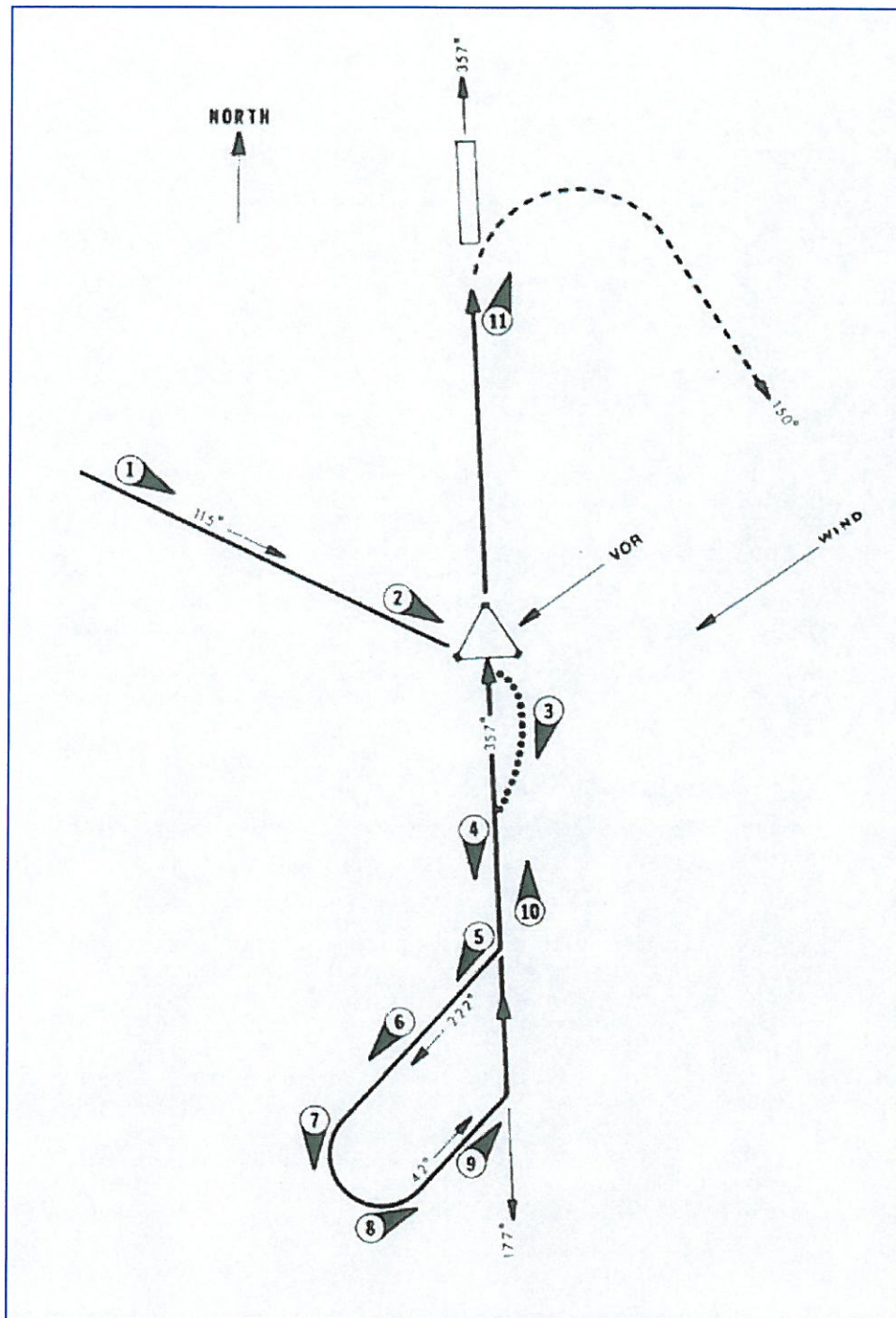
PSN	NSD-360A	MODE	REMARKS
1		NAV	The VOR approach usually begins from an enroute situation.
2		HDG	As the VOR is neared, match the heading bug to either the course or the lubber line and press HDG Button. Course arrow may now be set for inbound intermediate course segment.
3		REV	As the VOR is crossed, press the REV Button to fly the selected course outbound.
4		REV	The procedure turn outbound HDG is preselected with the heading bug.
5		HDG	Pressing the HDG Button will cause the aircraft to turn to the selected outbound procedure turn heading.



VOR APPROACH (CONT.)

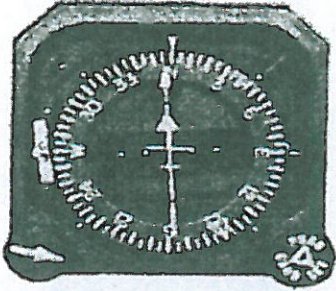
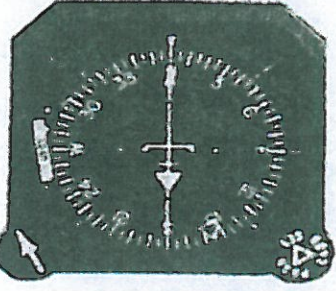
VOR APPROACH (CONT.)

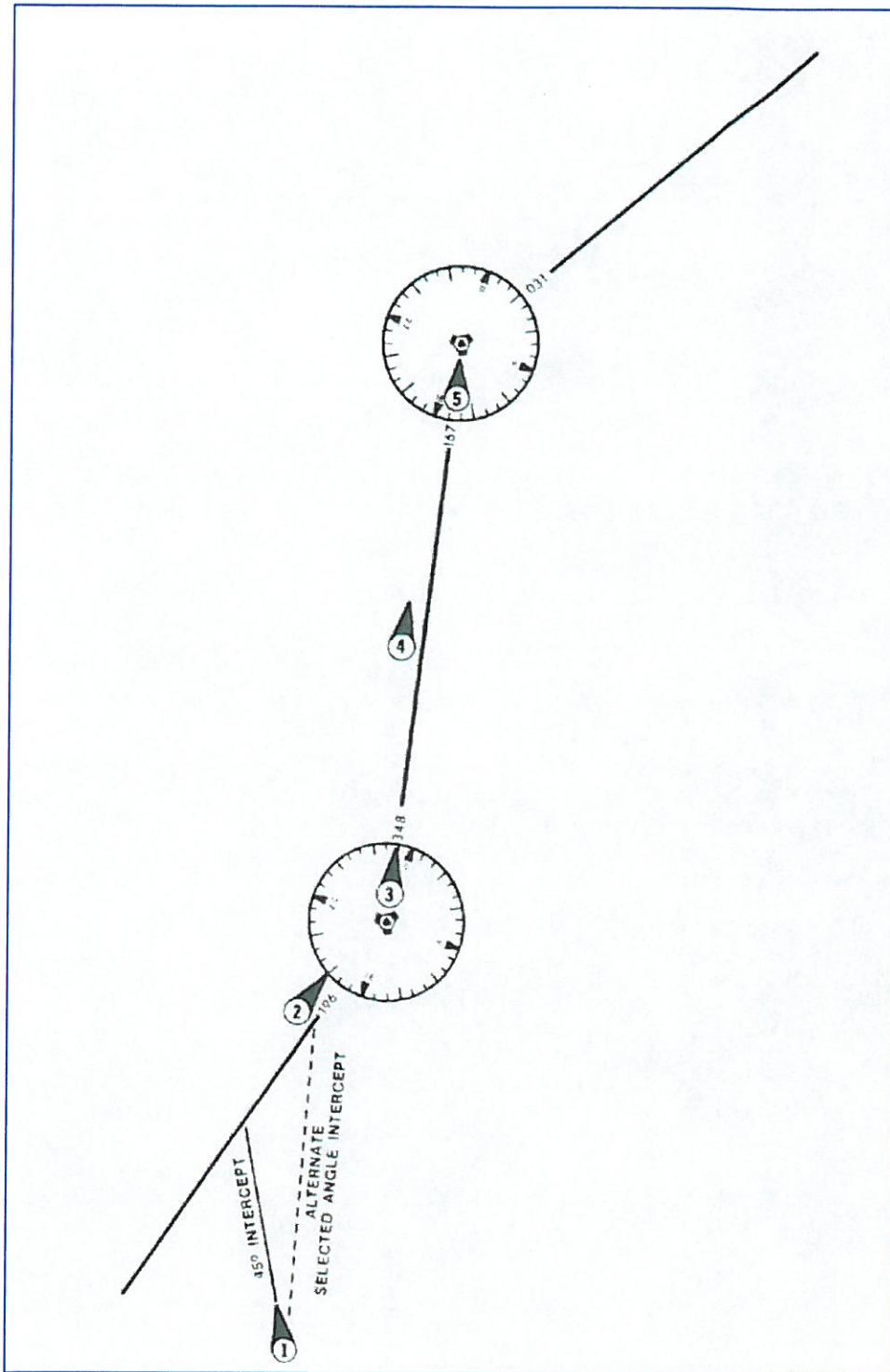
PSN	NSD-360A	MODE	REMARKS
6		HDG	Proceed outbound until sufficient time has elapsed to assure proper re-interception.
7		HDG	Lead aircraft through procedure turn by moving the heading bug initially about three-fourths of the way around the card in the desired direction of the turn.
8		HDG	As the aircraft turns, move the heading bug to the desired intercept heading.
9		APR	Press APR Button; system will automatically execute 45° (approximate) intercept.
9A		HDG APR	Alternate – If intercept angle other than 45° is desired, set heading bug to desired intercept heading. Press both HDG and APR Buttons simultaneously. System will remain in HDG until aircraft begins on course turn and then automatically switch to APR as indicated by extinguishing the HDG annunciator.



VOR APPROACH (CONT.)

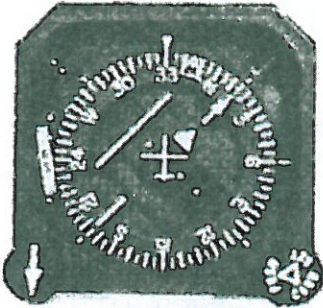
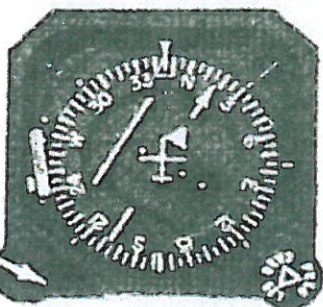
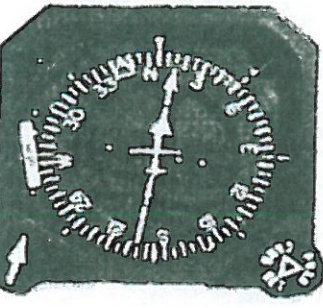

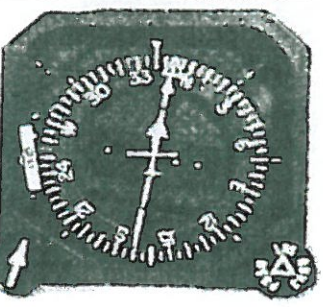
VOR APPROACH (CONT.)

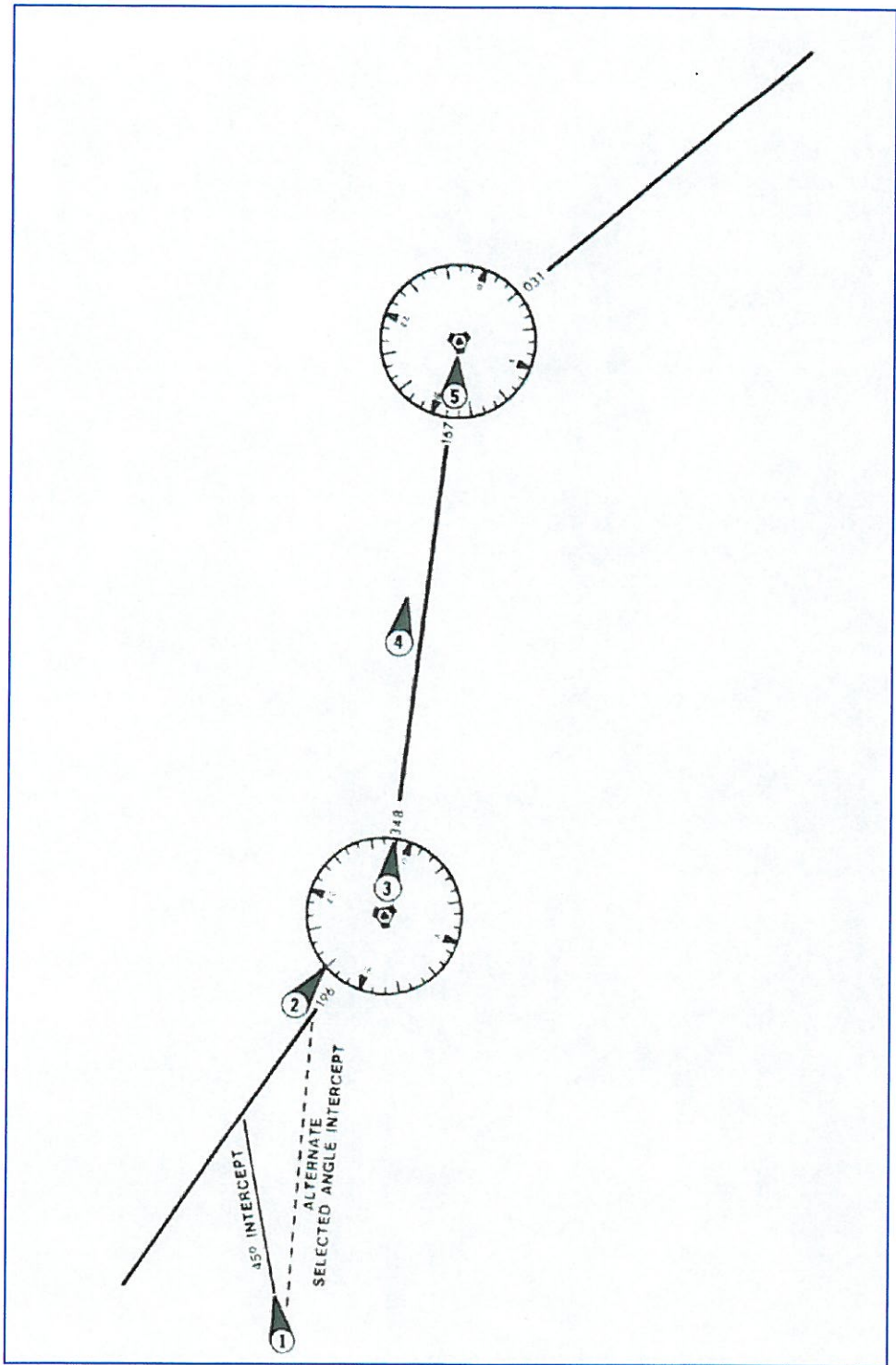
PSN	NSD-360A	MODE	REMARKS
10		APR	<p>After intercept, system will correct for crosswind, adjust its internal radio authority and limit bank angles. Aircraft altitude should be controlled as appropriate for the approach manually. Should a course change be required for the final approach segment, simply move the course at the VOR. Missed approach heading may be preprogrammed with the HDG bug.</p>
11		HDG	<p>For missed approach, conduct normal GA sequence.</p>



VOR NAVIGATION

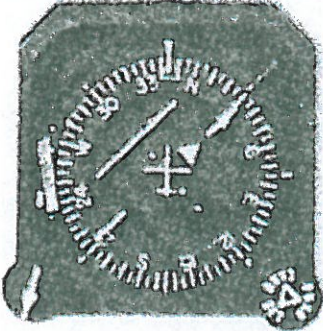
VOR NAVIGATION

PSN	NSD-360A	MODE	REMARKS
1		NAV	Forty-five degree intercept to a selected radial is automatically accomplished by setting the course arrow/OBS to the desired VOR course and pressing the NAV button on the Programmer.
1A		HDG NAV	Alternate – If an intercept angle other than 45° is desired, select the desired course with the course arrow/LBS and the desired intercept heading with the Heading Bug. Press HDG and NAV Buttons simultaneously. The system will remain in HDG mode until aircraft begins on course turn and then switch automatically to NAV.
2		NAV	After intercept, system will correct for crosswind, adjust its internal radio authority and limit bank angles.
3		NAV	If a course change is required at the VOR, simply reposition the course arrow/OBS to the NAV course. If change is small, (less than 45°), system will remain in bank limiting. If change is large, system will re-cycle as in PSN 2.
4		NAV	Station switching is accomplished by re-channeling the NAV receiver to the station ahead and repositioning the course arrow/OBS to the new course. Note: If desired, station change may be made by setting Heading Bug, press HDB and then pressing NAV after setting course arrow/OBS, system re-cycles as in PSN 2 if system is reprogrammed.



VOR NAVIGATION (CONT.)

VOR NAVIGATION (CONT.)

PSN	NSD-360A	MODE	REMARKS
5		HDG	<p>The selected angle intercept feature may be used for course changes at VOR's if desired. When near the NOR (5nm, max), match the heading bug to the lubber line and press HDG button. Set new course with the course arrow/OBS. Press HDG and NAV Buttons simultaneously. When new radial is intercepted, system will automatically switch to NAV and acquire the new course.</p>

MAINTENANCE

The **Century 21** has been designed and manufactured to render reliable service; however, some of the system components will require a regular inspection and service. It is important that agencies selected for service are properly qualified and equipped to render service on the **Century 21**

We have listed several items below to assist you in monitoring your system maintenance.

1. **Gyro Filters** – The gyros used with the **Century 21** are precision devices whose performance and service life are in part dependent upon the quality of the air supply. Poor air quality can significantly reduce gyro life (to hours) and performance by contaminating bearings. Regular filter maintenance is a good investment.
2. Periodic inspection and maintenance is recommended for those items of the autopilot which attach to the aircraft control systems. During normal inspection is a good time to make these simple checks on the autopilot.
 - A. Inspect the bridle cable on the Roll Servo for:
 1. Condition.
 2. Tension – feels equally tight as main cable.
 3. Freedom – move controls through travel.
 - B. Inspect bridle cable clamps for:
 1. Obstruction.
 2. Bolt Torques – 55 ± 5 inch pounds of torque. Note: This higher than normal torque is FAA approved and required.
 3. Gap between clamp halves -- .005" minimum, assures that cables are under clamping pressure.

EMERGENCY OPERATION

Appearance of HDG Flag:

1. Check air supply gauge (vac or pressure) for adequate air supply (4 in Hg. min.).
2. Check NSD-360A circuit breaker.
3. Observe display for proper operation.

To disable heading card – pull circuit breaker and use magnetic compass for directional data. Note: If heading card is not operational, autopilot should not be used.

With card disabled – VOR, Localizer and Glide Slope displays are still function at; use card set to rotate card to aircraft heading for correct picture.

Slaving Failure – i.e. failure to self-correct for gyro drift):

1. Check slave switch (if installed) for SL-1 PSN.
2. Check for HSG Flag.
3. Check NSD circuit breaker.
4. Reset heading card while checking slaving meter.
5. Select slaving amplifier No. 2 (SL-2) if available.
6. Reset heading card while checking slaving meter.
7. Switch to free gyro and periodically set card as unslaved gyro.

NOTE

If the optional RMI feature is installed, it is inoperative in the SL-2 position.

PRODUCT IMPROVEMENTS

Century Flight Systems, Inc. maintains a policy of constant improvement. Many times these product improvements are made available on a retrofit basis to owners of earlier systems. In most cases, retrofit and up-grading is available at moderate cost through your Century Flight Systems, Inc. Distributor. We must, because of practical considerations, state that we reserve the right to make changes in product specifications and prices without incurring obligations.

May we suggest that you ask your installer to enter this significant data in your Operator's Manual for easy reference:

AK NO. _____ System S/N _____

Date Installed _____

Installed by _____

Major component part numbers and serial numbers

Controller/
Flight Computer, P/N _____ S/N _____

Compass System P/N _____ S/N _____

Remarks (Special Features) _____

Registration of your system for warranty purposes will provide us with basic data on your system which we will use to make you aware of product improvements.

Should you sell your aircraft, may we ask you to advise the new owner of our continuing interest and ask him to drop us a note containing the above data so we may up-date records.

NOTES

NOTES

Effective: July 4, 1975

LIMITED WARRANTY CENTURY FLIGHT SYSTEMS, INC. AUTOPILOT

Each new Century Flight Systems, Inc. Autopilot is warranted by the manufacturer to be free from defects in material and workmanship under normal use, subject to the following conditions:

1. Century Flight Systems, Inc. will through its designated service facilities at its option either repair or replace new components which, shall within (12) months after date of installation, be found to Century Flight Systems, Inc. satisfaction, to have been defective in material or workmanship under normal use.
2. The warranty registration must be signed and returned to Century Flight Systems, Inc. within ten days of equipment installation date. In the event that the registration card is not returned within this time, the date of shipment from the factory will be deemed to be the installation date.
3. This warranty will not apply to any product which has been installed, repaired in any way whatsoever in Century Flight Systems, Inc. opinion to adversely affect its performance or reliability, or which has been subject to misuse, contamination, negligence, or accident.
4. Cost of transportation, removal or reinstallation are at the option of Century Flight Systems, Inc.
5. This Century Flight Systems, Inc. sole express warranty with respect to the goods supplied herein. CENTURY FLIGHT SYSTEMS, INC. MAKES NO OTHER EXPRESS WARRANTY OF ANY KIND WHATSOEVER, CENTURY FLIGHT SYSTEMS, INC. EMPLOYEES MAY HAVE MADE ORAL STATEMENTS ABOUT THE PRODUCTS DESCRIBED IN THIS CONTRACT. SUCH STATEMENTS DO NOT CONSTITUTE WARRANTIES, SHALL NOT BE RELIED UPON BY THE CUSTOMER AND ARE NOT PART OF THE SALE CONTRACT.
6. THE DURATION OF ANY IMPLIED WARRANTY, AND OF ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL BE LIMITED TO (12) MONTHS COMMENCING AT DATE OF INSTALLATION THE FULL EXTENT PERMITTED BY APPLICABLE LAW, CONSEQUENTIAL DAMAGE OR BREACH OF ANY WARRANTY ARE HEREBY DISCLAIMED AND EXCLUDED BY CENTURY FLIGHT SYSTEMS, INC.

CENTURY FLIGHT SYSTEMS, INC.
PO BOX 610
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MINERAL WELLS, TX 76068

