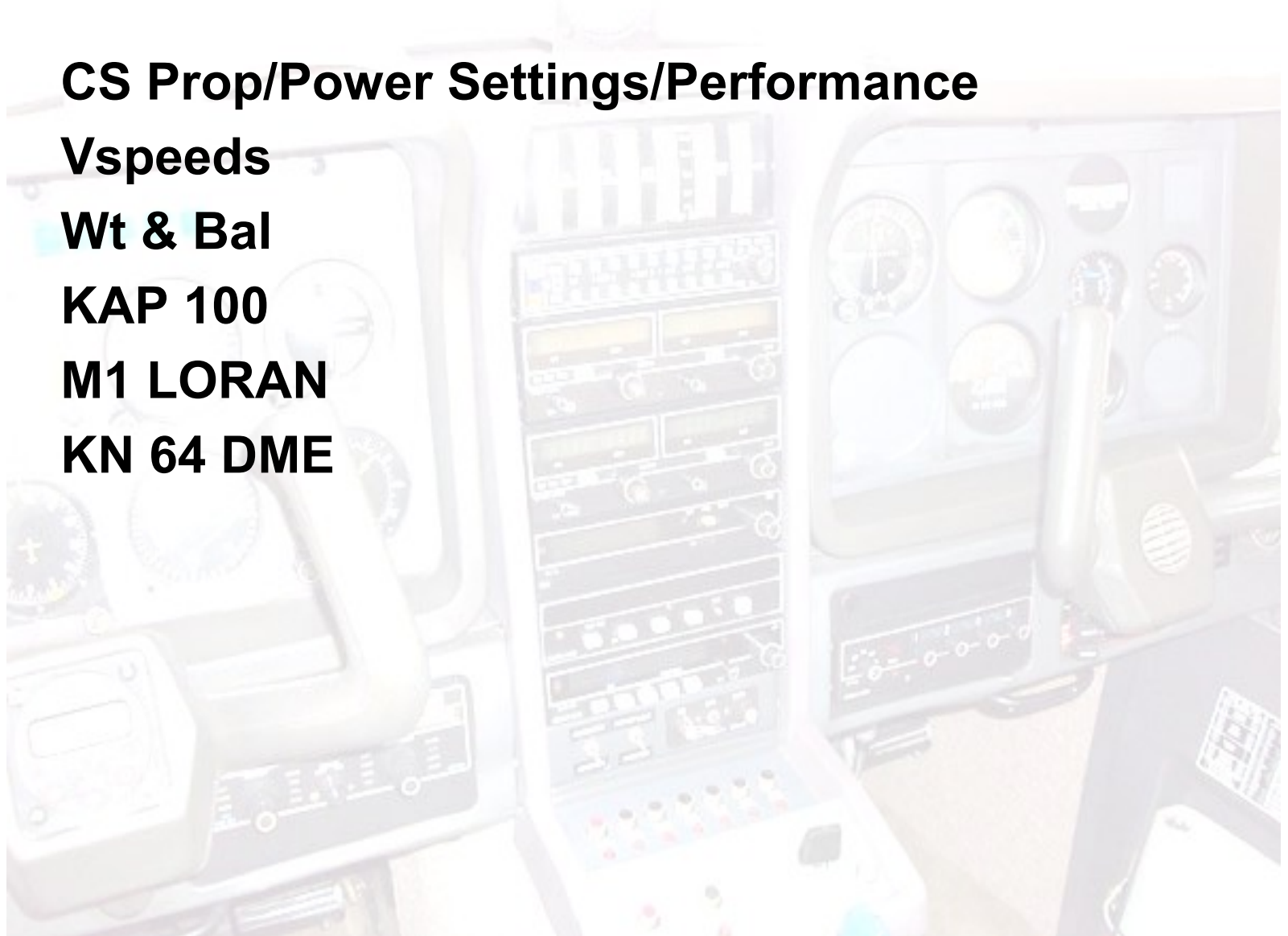


TB10/N189TB



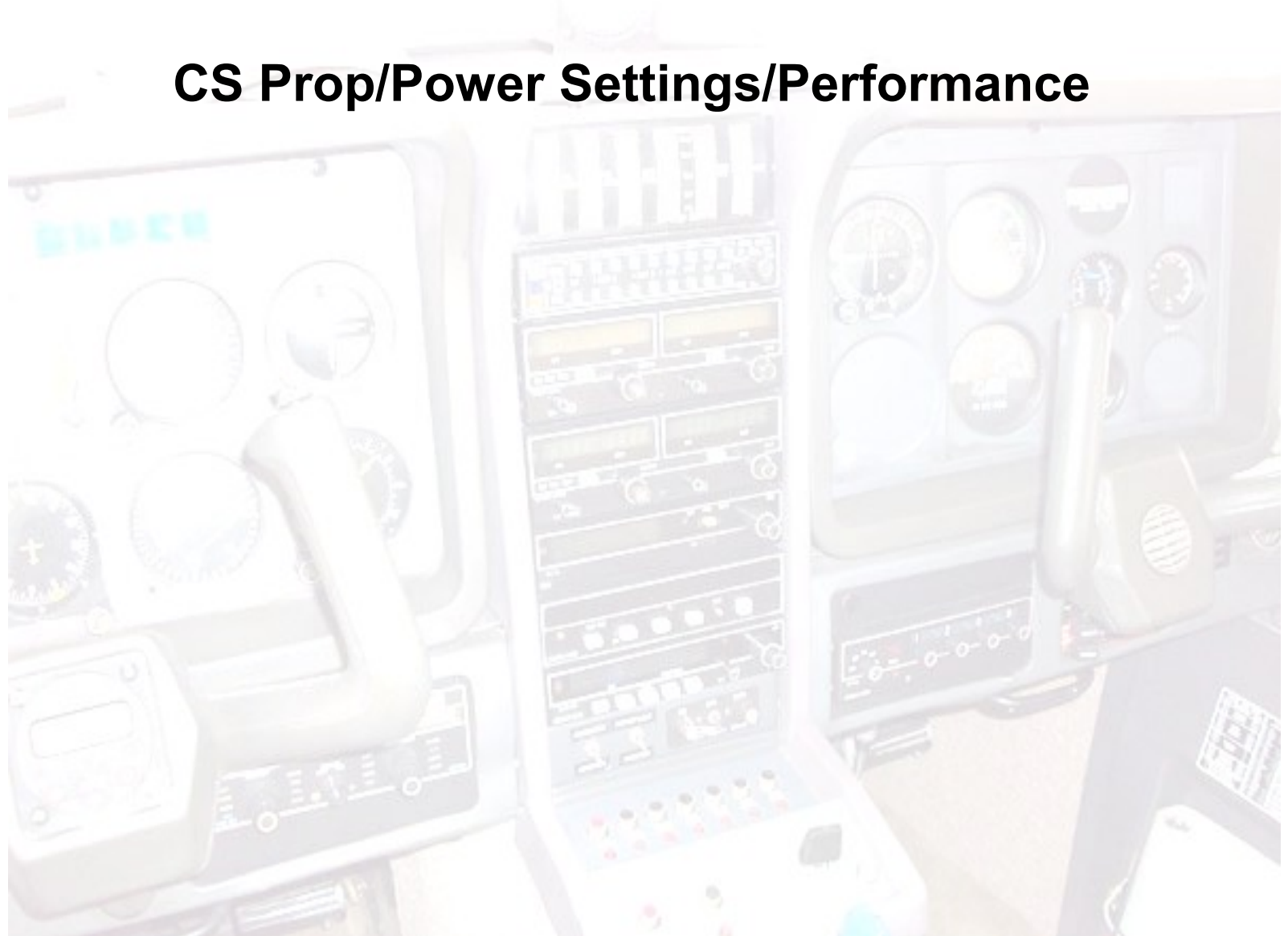
TB10/N189TB

1. **CS Prop/Power Settings/Performance**
2. **Vspeeds**
3. **Wt & Bal**
4. **KAP 100**
5. **M1 LORAN**
6. **KN 64 DME**



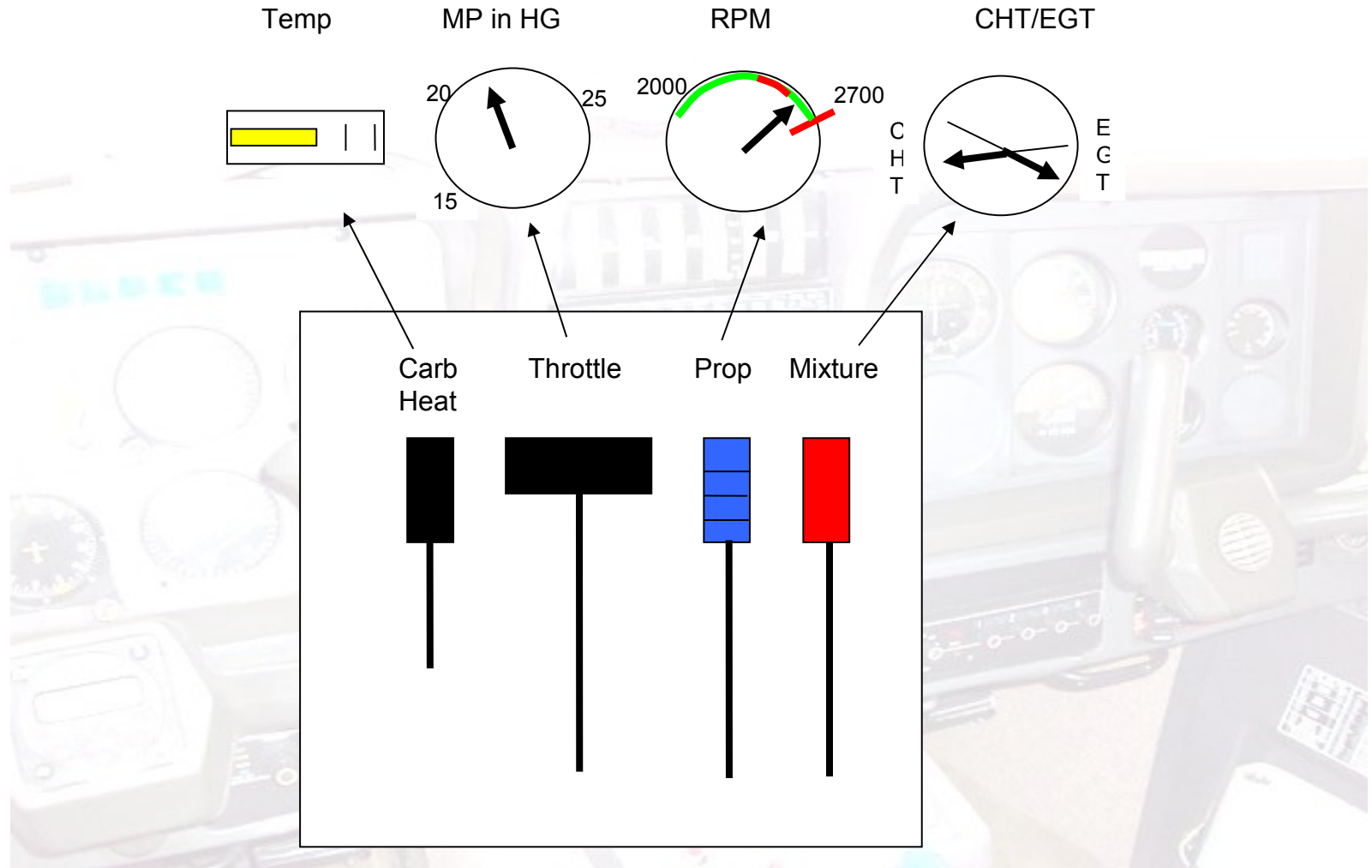
TB10/N189TB

CS Prop/Power Settings/Performance



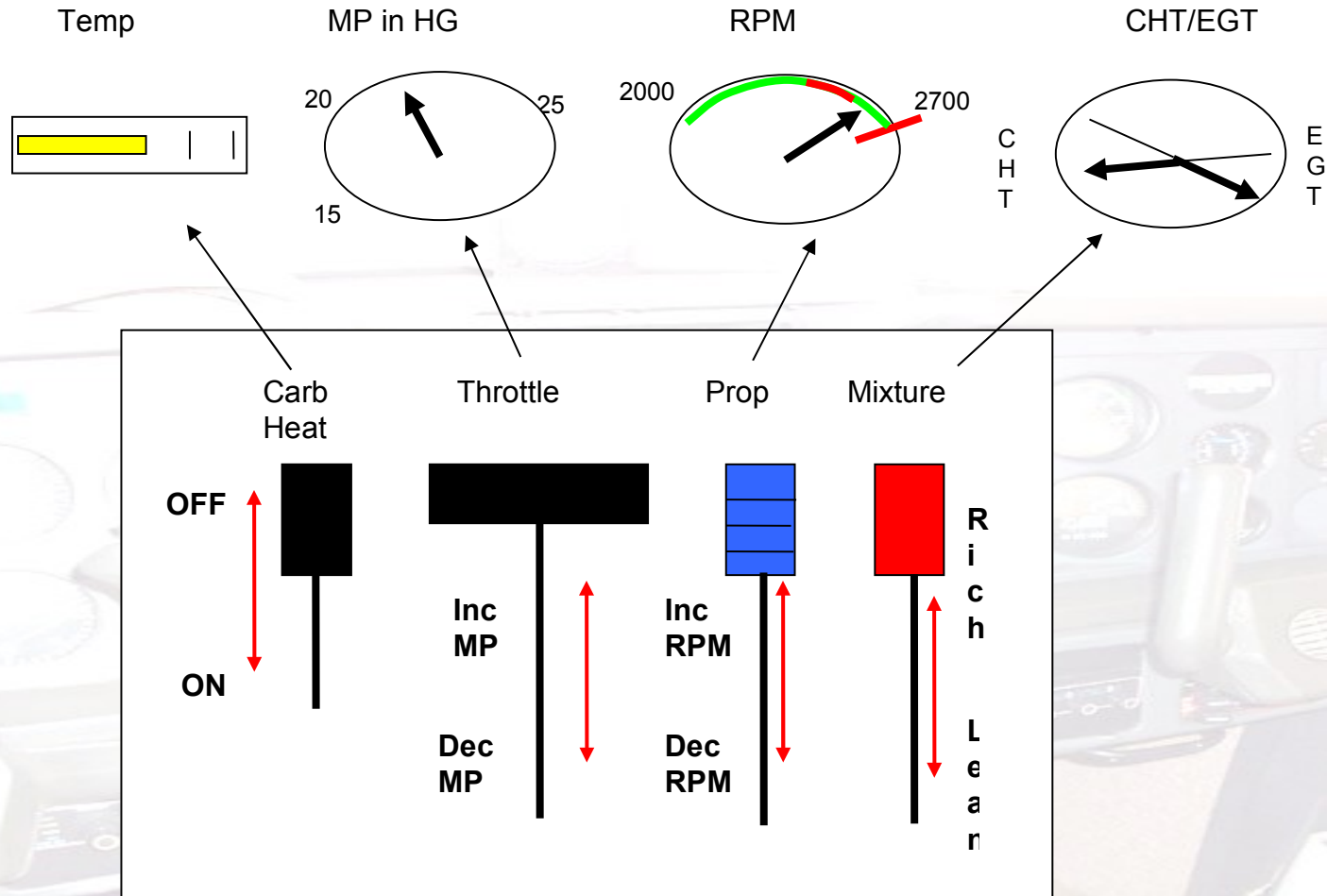
TB10/N189TB

CS Prop/Power Settings/Performance



TB10/N189TB

CS Prop/Power Settings/Performance



TB10/N189TB

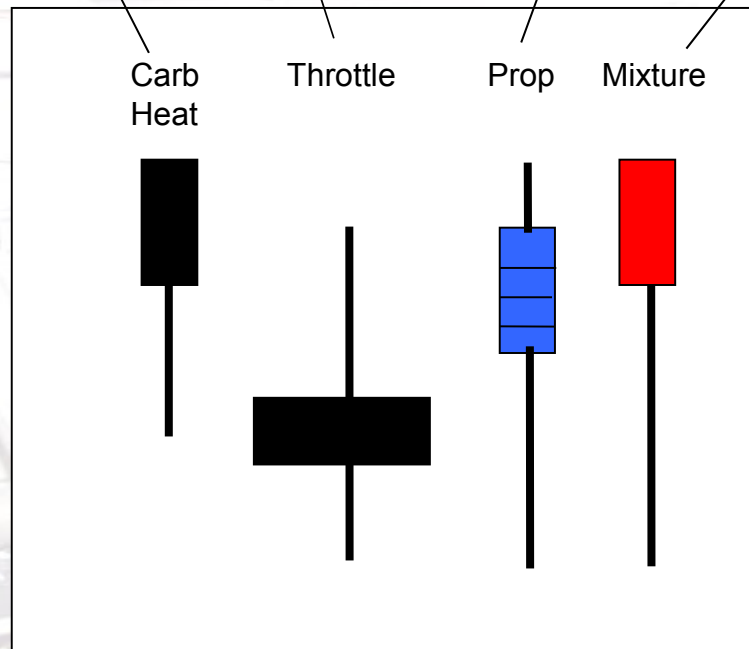
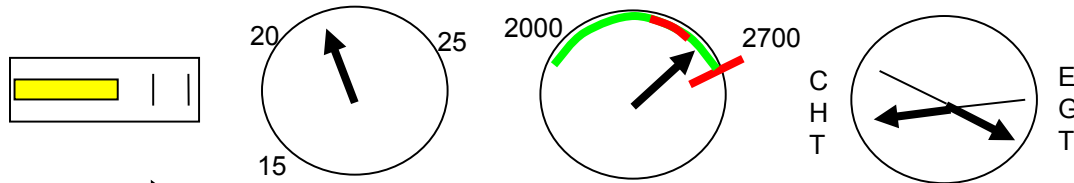
CS Prop/Power Settings/Performance

Temp

MP in HG

RPM

CHT/EGT



To DECREASE POWER.... Decrease Throttle (MP) THEN Decrease Prop (RPM)

TB10/N189TB

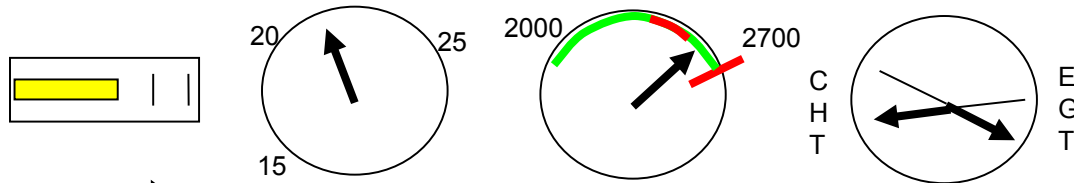
CS Prop/Power Settings/Performance

Temp

MP in HG

RPM

CHT/EGT



Carb
Heat

Throttle

Prop

Mixture

To INCREASE POWER.... **Increase Prop (RPM)** THEN Increase Throttle (MP)

TB10/N189TB

CS Prop/Power Settings/Performance

SECTION 5
PERFORMANCE

SOCATA
MODEL TB 10

RATINGS TABLE - ENGINE LYCOMING O-360-A1AD

% BHP	PRESSURE ALTITUDE ft	MANIFOLD PRESSURE in.Hg		
		2350 RPM	2450 RPM	2700 RPM
75	0	24.6	24.1	23.1
	2000	24.1	23.6	22.4
	4000	23.6	23	22
	6000		22.5	21.5
	8000			21
65	0	22.2	21.8	20.7
	2000	21.7	21.2	20.3
	4000	21.2	20.7	19.8
	6000	20.7	20.2	19.4
	8000	20.2	19.7	19
55	0	21	20.6	
	2000	20.5	20.1	
	4000	20	19.6	/
	6000	19.5	19.1	
	8000	19	18.7	

Recommended values : ***Italic numbers***

Add 0.5 in.Hg to manifold pressure per fraction of 18°F (10°C) above standard temperature.

Decrease manifold pressure by 0.5 in.Hg per fraction of 18°F (10°C) under standard temperature.

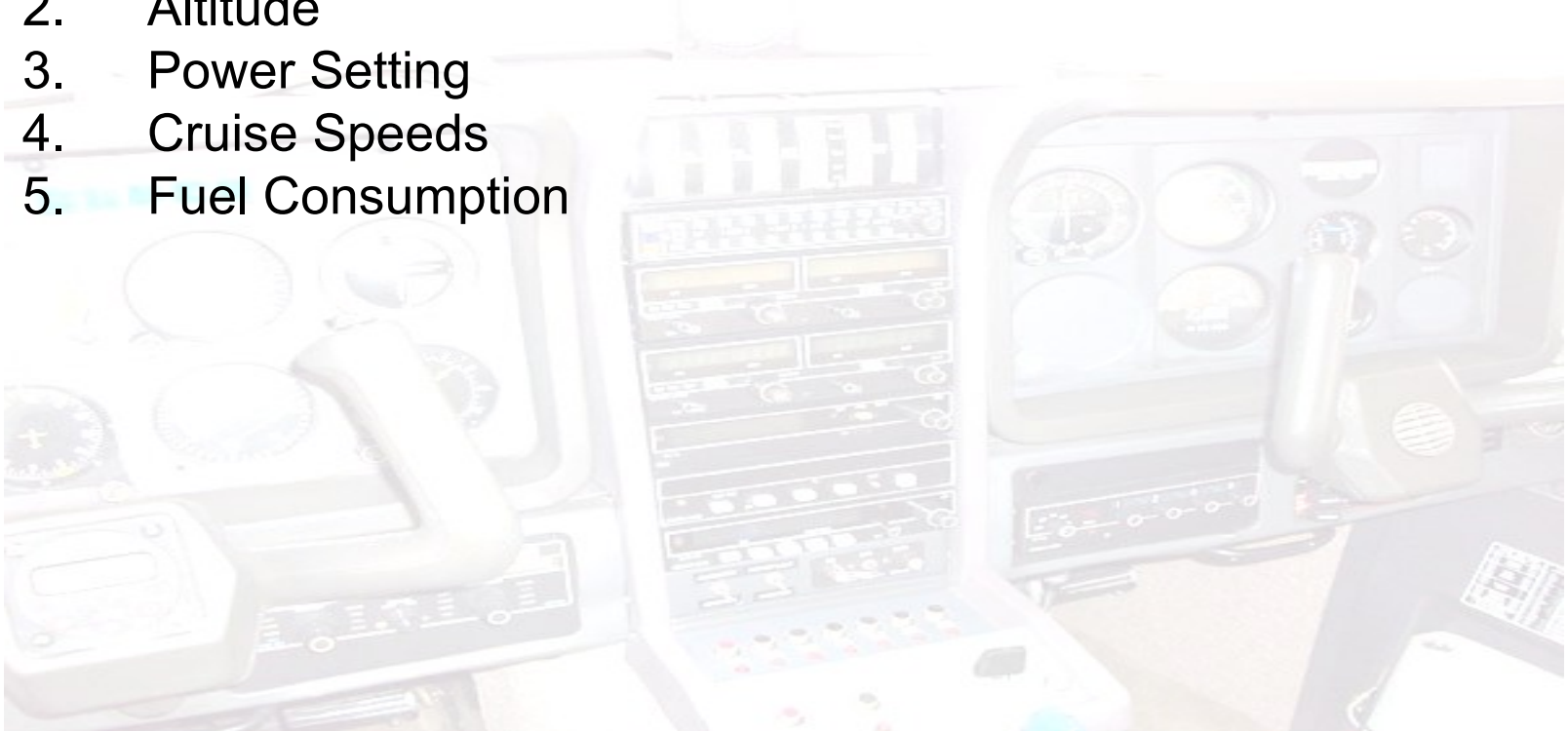
Figure 5.8 - RATINGS TABLE

TB10/N189TB

CS Prop/Power Settings/Performance

POH Section 5 (Performance) provides details for:

2. Altitude
3. Power Setting
4. Cruise Speeds
5. Fuel Consumption



TB10/N189TB

Vspeeds

Va max	122
Va recomendaded	108
Vapproach	78-72
Vfe	95
Vs(clean)	60
Vso(landing)	53
Vs1(flaps10)	57
Vglide(clean)	85
Vgoaround(flaps10)	73
Vy (clean)	78
Vy (flaps40)	70
Vx (clean)	65
Vx (flaps40)	58

TB10/N189TB

Weight and Balance

		wt	arm	moment/1000
Actual MT		1621.8	37.92	61.50
pilot		180	45.38	8.17
copilot		180	45.38	8.17
backseat		180	82.48	14.85
baggage		20	97.05	1.94
fuel	55.4	332.4	42.32	14.07
		2514.2		108.69
MGW		2535		

TB10/N189TB

Weight and Balance

NOTE :

Option No. 0800.00M "L.H. or R.H. front seat back-off installation", option No. 0800.10M "L.H. front seat back-off installation" and/or option No. 0800.20M "R.H. front seat back-off installation" are marked on your airplane by a color ring (yellow / green) located on the 2 front supports (tubes) of each seat.

For C.G. location calculation, take 2-inch (50 mm) L.H. front seat or L.H. and R.H. front seats back-off installation into account.



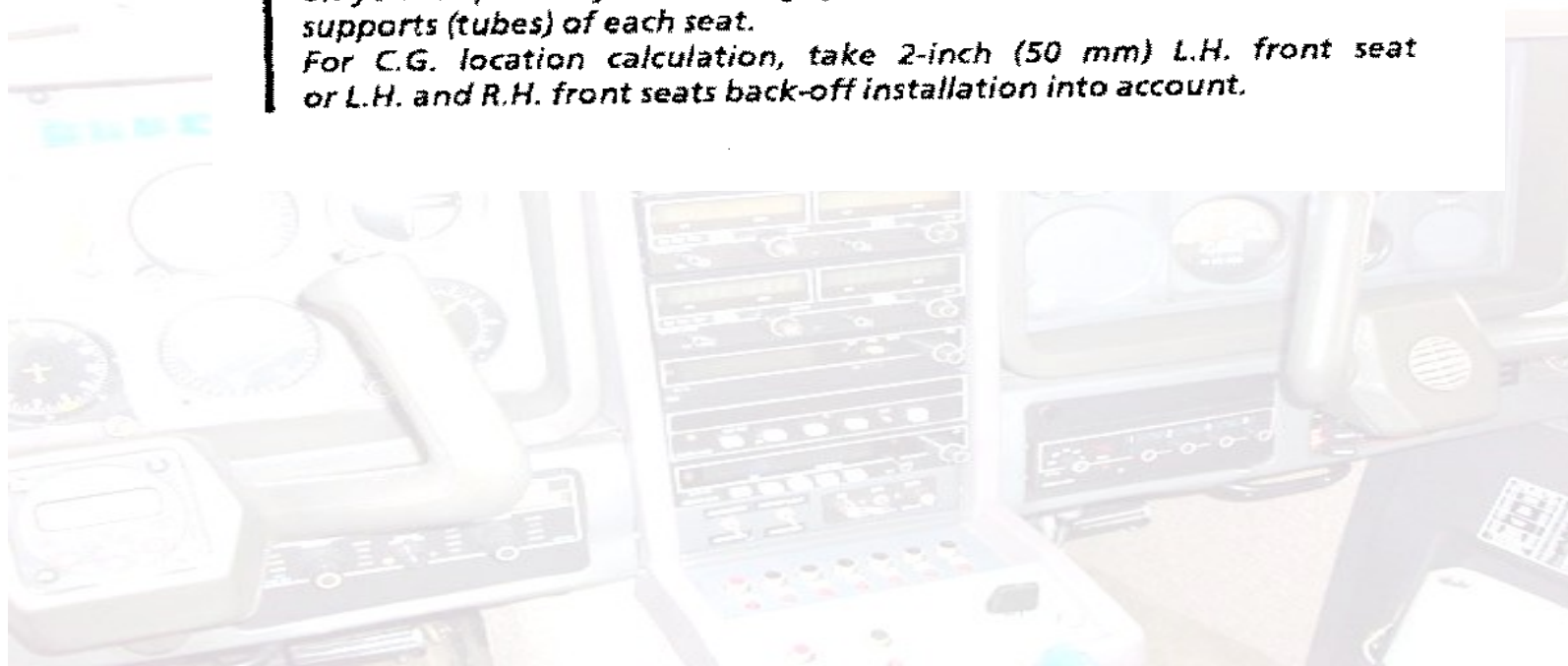
TB10/N189TB

Weight and Balance

NOTE :

Option No. 0800.00M "L.H. or R.H. front seat back-off installation", option No. 0800.10M "L.H. front seat back-off installation" and/or option No. 0800.20M "R.H. front seat back-off installation" are marked on your airplane by a color ring (yellow / green) located on the 2 front supports (tubes) of each seat.

For C.G. location calculation, take 2-inch (50 mm) L.H. front seat or L.H. and R.H. front seats back-off installation into account.



TB10/N189TB

Weight and Balance

	SAMPLE AIRPLANE			YOUR AIRPLANE			Ref. on chart Figure 6.6
	Weight lb	Lever arm in.	Moment lb.in / 1000	Weight lb	Lever arm in.	Moment lb.in / 1000	
Standard empty weight	1543	37.23	57.45				A(1)
Optional equipment	11	156.36	1.72				
Basic empty weight	1554		59.17				
Pilot (without Opt. 0800)	170	45.38	7.71				A(2)
Pilot (with Opt. 0800)	/	47.44	/				
Front passenger (without Opt. 0800)	170	45.38	7.71				
Front passenger (with Opt. 0800)	/	47.44	/				B(1)
Rear seat passengers	340	82.48	28.04				
Fuel (41.45 U.S Gal.)	249	42.32	10.54				
Baggage	33	97.05	3.2				B(2)
TOTAL WEIGHT AND MOMENT	2516		116.37				M

Figure 6.3 - SAMPLE LOADING

TB10/N189TB

Weight and Balance

SOCATA
MODEL TB 10

SECTION 6
WEIGHT AND BALANCE

CAUTION

OPTION(S) No. 0800.00M (Qty 1 or 2) OR 0800.10M AND
0800.20M (See NOTE on page 6.6) :
2-in. (50 mm) back-off installation for L.H. and/or R.H. front seat(s)

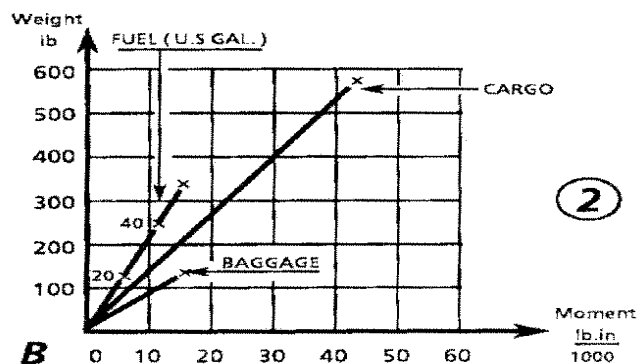
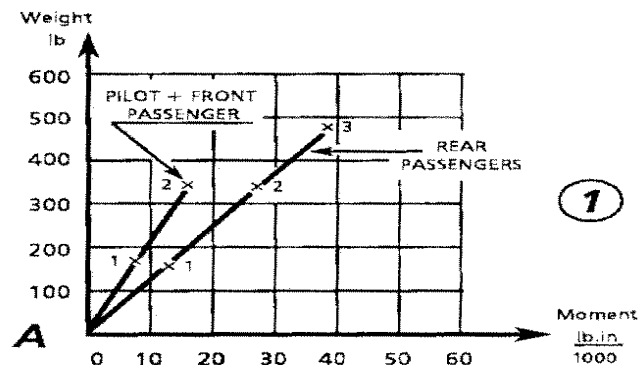


Figure 6.4 - LOADING GRAPHS

TB10/N189TB

Weight and Balance

SOCATA
MODEL TB 10

SECTION 6
WEIGHT AND BALANCE

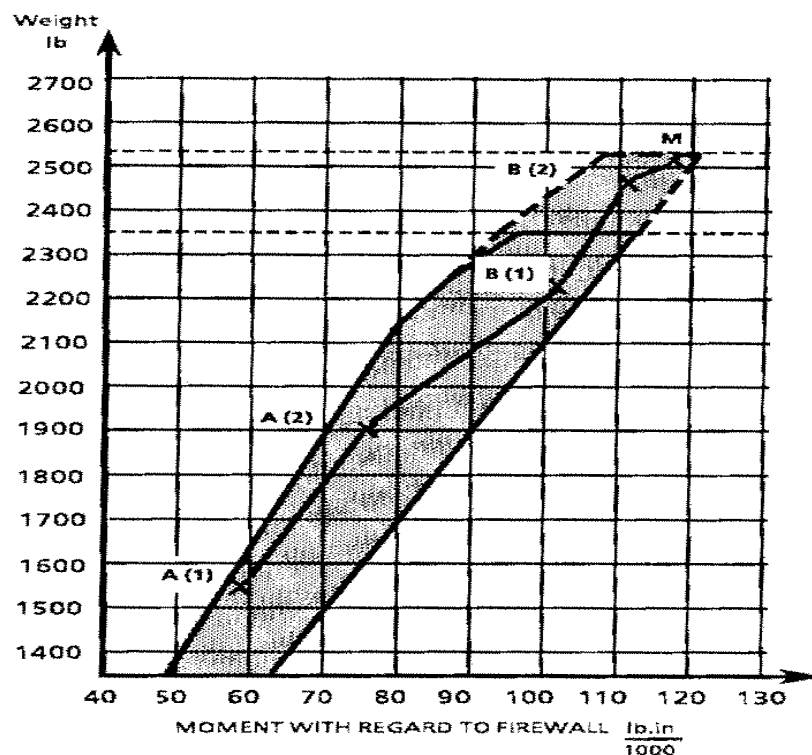
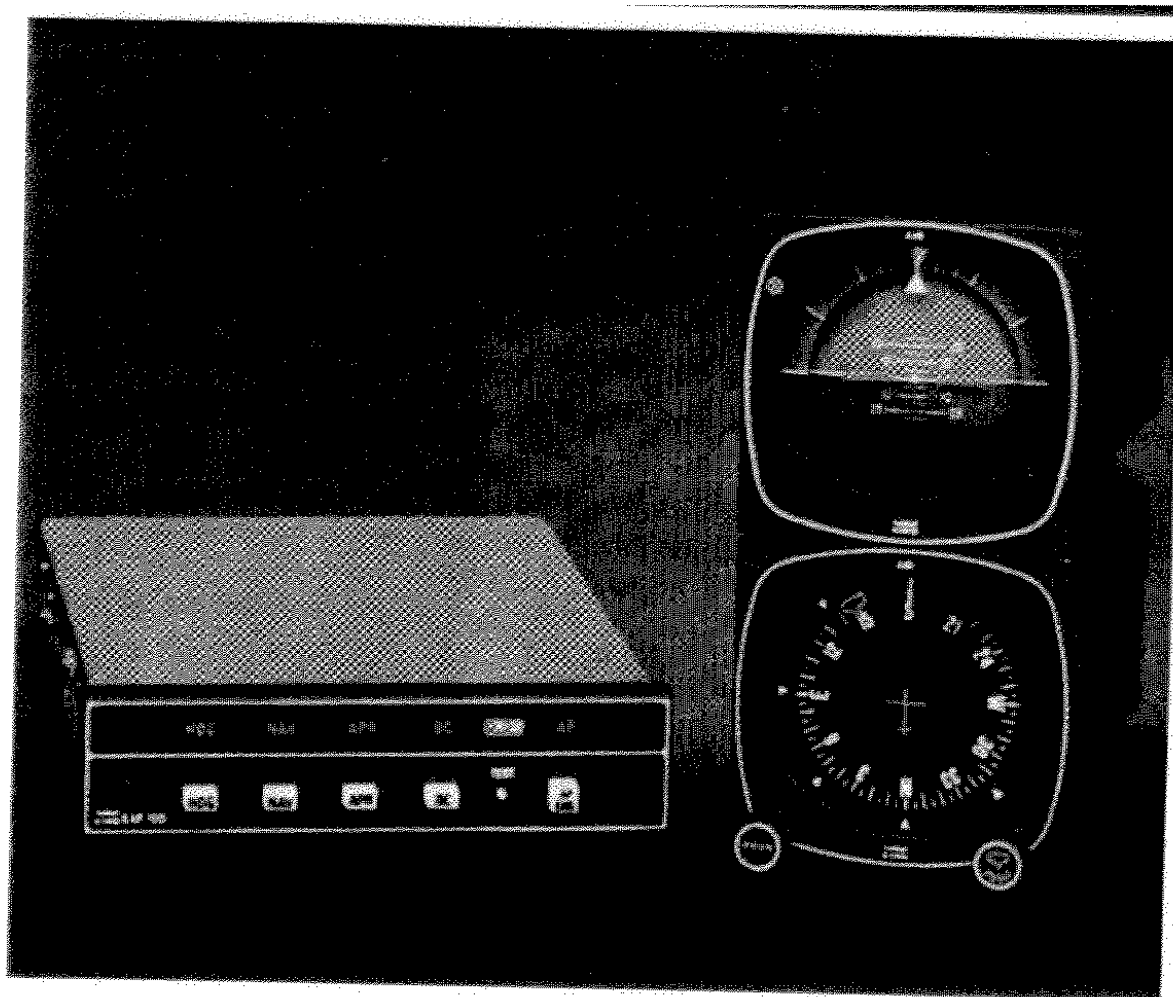


Figure 6.6 - LOADING SAMPLE

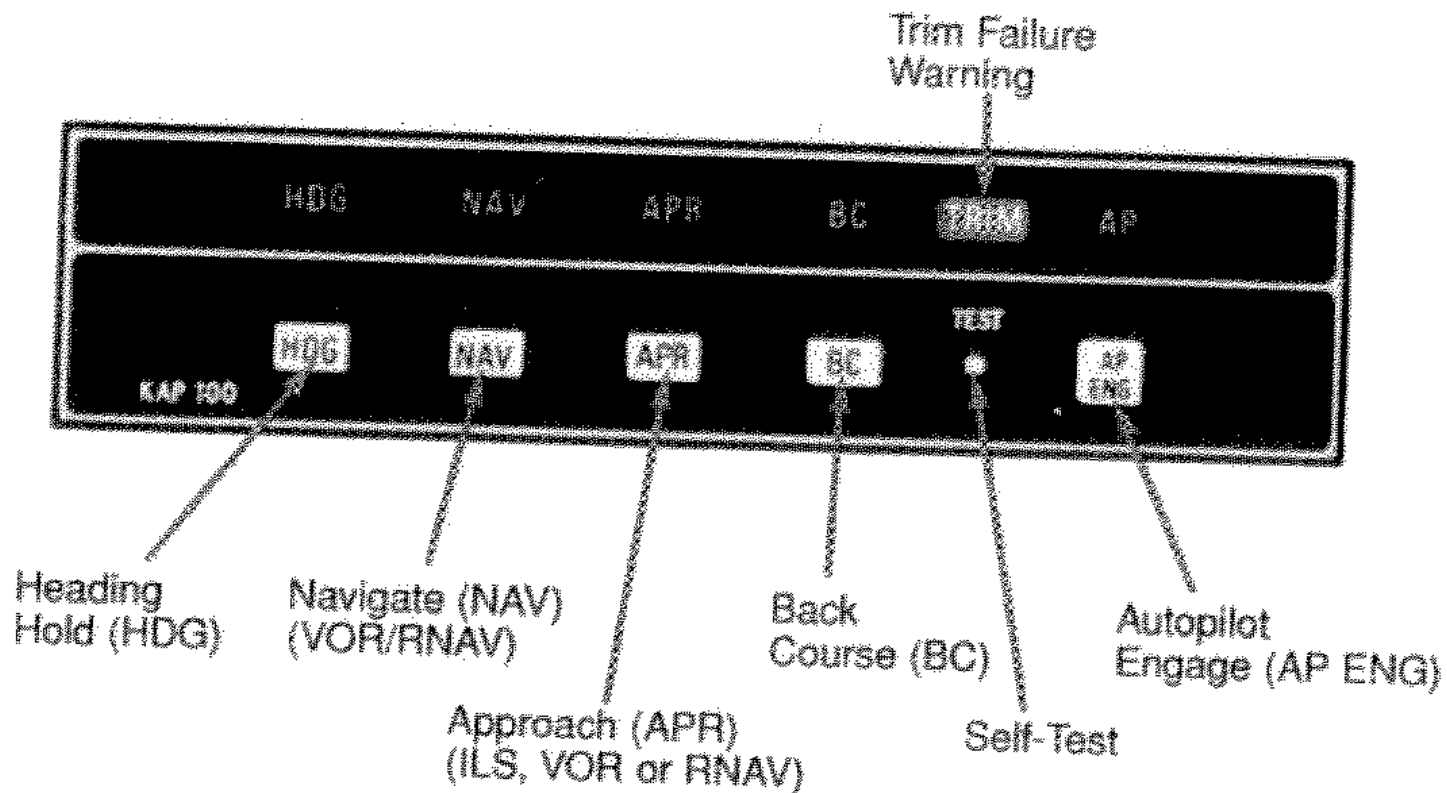
TB10/N189TB

KAP 100



TB10/N189TB

KAP 100

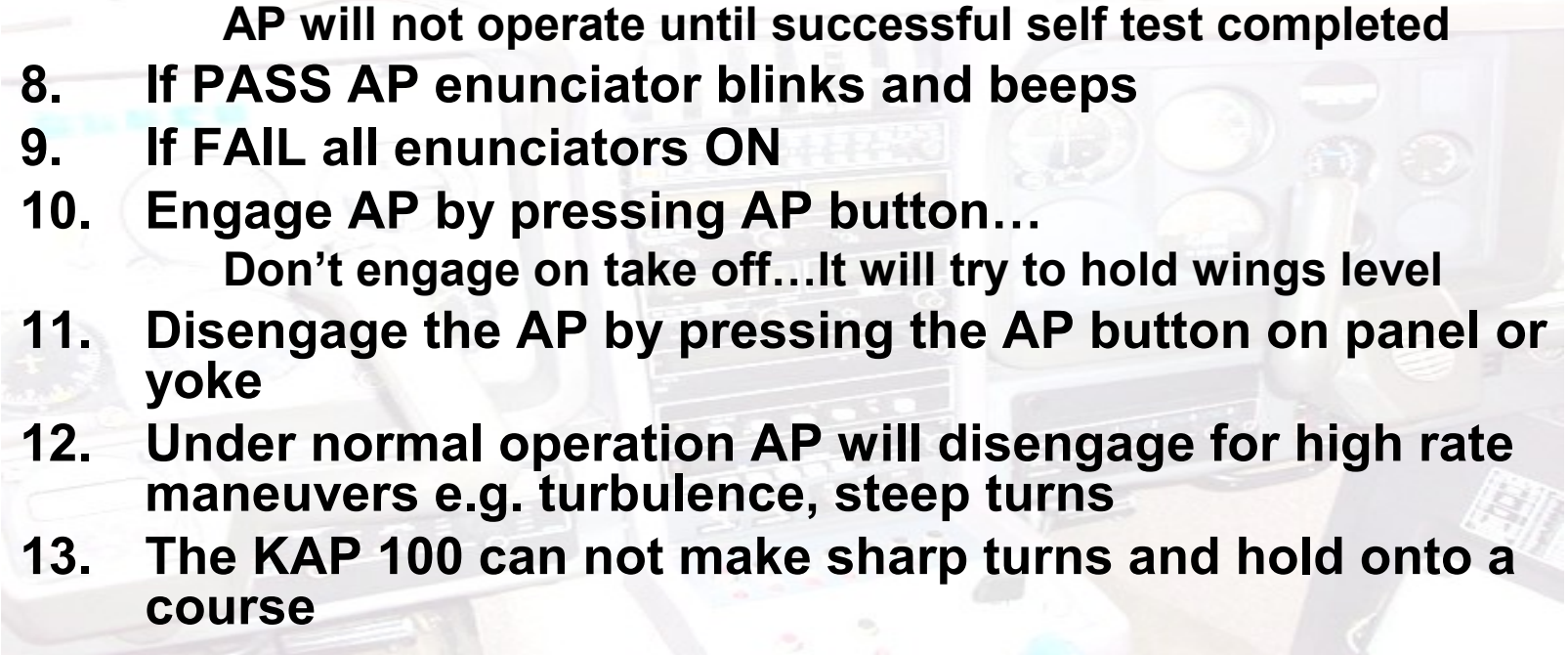


TB10/N189TB

KAP 100

The KAP 100 is a single axis autopilot...

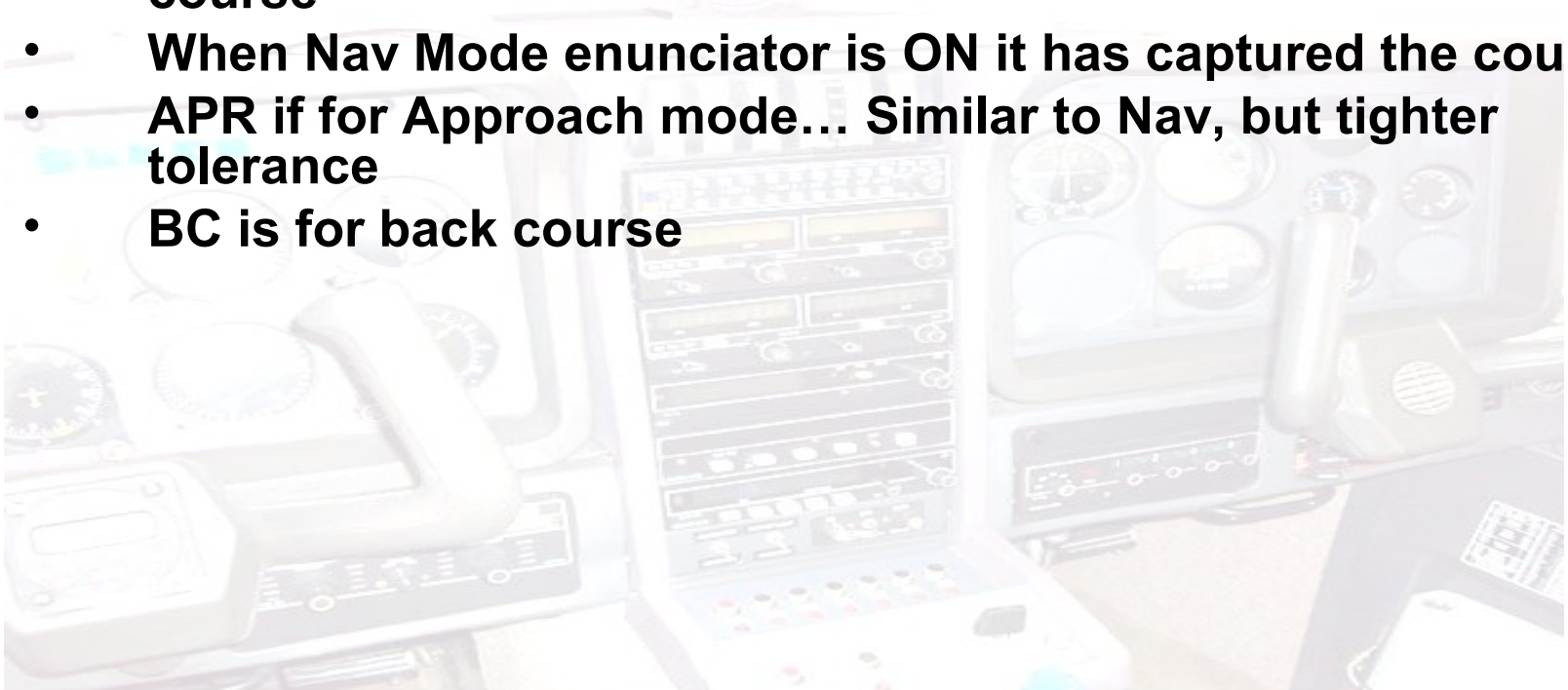
It holds heading (roll axis) only

- 
- 6. AP Off/On switch on bottom of radio stack**
 - 7. Push to test ON THE GROUND ONLY**
 - AP will not operate until successful self test completed**
 - 8. If PASS AP enunciator blinks and beeps**
 - 9. If FAIL all enunciators ON**
 - 10. Engage AP by pressing AP button...**
 - Don't engage on take off...It will try to hold wings level**
 - 11. Disengage the AP by pressing the AP button on panel or yoke**
 - 12. Under normal operation AP will disengage for high rate maneuvers e.g. turbulence, steep turns**
 - 13. The KAP 100 can not make sharp turns and hold onto a course**

TB10/N189TB

KAP 100

- **Heading Mode follows the Heading bug on the DG**
- **Nav Mode try to follow NAV1**
- **Usually need to set up a $\approx 45^\circ$ intercept**
- **When Nav Mode enunciator is blinking it's trying to capture course**
- **When Nav Mode enunciator is ON it has captured the course**
- **APR if for Approach mode... Similar to Nav, but tighter tolerance**
- **BC is for back course**



TB10/N189TB

KAP 100

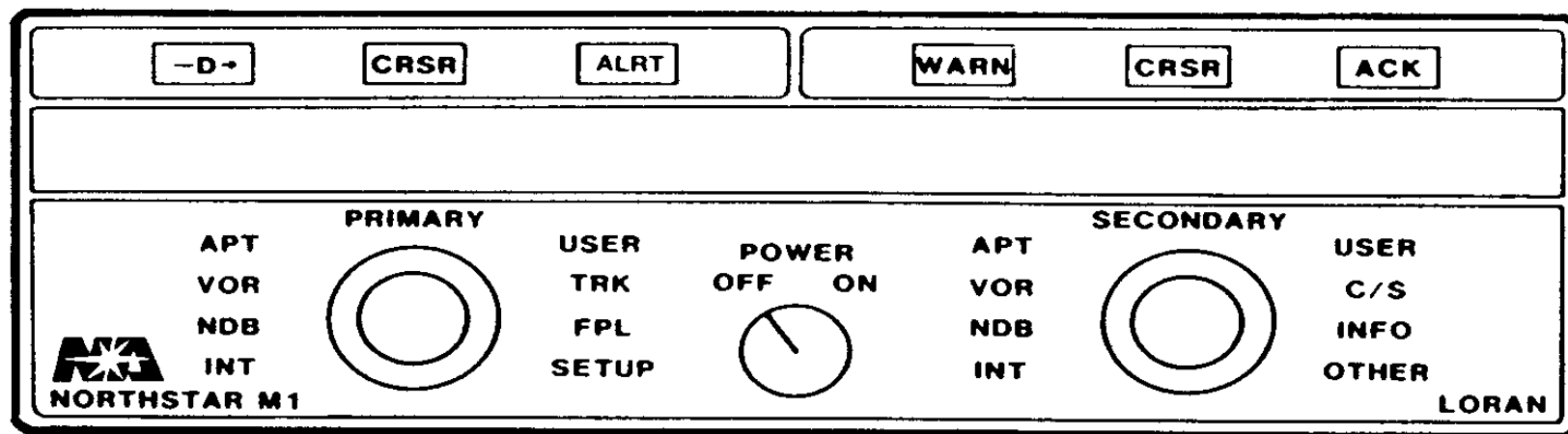
Problems noted on flight from HDC

5. During 1 leg AP would not engage
6. The audible enunciator either does not work or is not connected to the audio panel



TB10/N189TB

M1 LORAN



TB10/N189TB

M1 LORAN

- D→** **(Direct)** Sets a flight path from your present position direct to the waypoint or flight plan leg displayed in the **PRIMARY** readout. (Follow by pressing **ACK**.)
- CRSR** **(Cursor)** Turns flashing cursor on and off for data entry.
- ALRT** **(Airalert™)** Flashes to warn of impending penetration of, or present position within, a TCA or ARSA. Press to display current alert condition (button will remain lighted until you exit the controlled airspace and the alert condition ceases).
- WARN** **(Warn)** Flashes when a warning condition occurs. Press to display the condition. Press again to return to normal display.
- ACK** **(Acknowledge)** 1. Flashes when waiting to be pushed for entering data, or displaying an advisory message.
2. Press to instantly save present position (see *Northstar M1 Reference Manual*, Section 3.5.3).

TB10/N189TB

M1 LORAN

APT, VOR, NDB, INT, and USER Selects a waypoint category from the M1's database (see Section 4).

Use the *small* knob to select a particular waypoint. Distance and bearing to that waypoint are automatically calculated and displayed.

TRK (**Track**) Displays information about the current desired track (current track is specified by pressing **→D→** and then pressing **ACK**, or by activating a flight plan).

Use the *small primary* knob to select the specific track information to be displayed (see Section 7).

FPL (**Flight Plan**) Enter, review, modify or activate a flight plan (see Section 8).

Use the *large secondary* knob to select flight plan function.

SETUP Accesses setup and service functions (see Section 2).

Use the *small primary* knob to select function.

C/S Course and Ground Speed, Winds Aloft (see Section 10).

INFO (**Information**) Shows additional information about the waypoint displayed in the **PRIMARY** readout.

Use the *small secondary* knob to show facility name, city, state, frequencies, runways, etc.

OTHER Shows lat/lon, loran TDs and SNRs.

TB10/N189TB

M1 LORAN

4. ACCESSING THE DATABASE

On either readout, turn the *large* knob to select the waypoint category desired.

20 NEAREST WAYPOINTS (any category, on either readout)

Turn the *small* knob all the way to the left to go into the **LOCAL** group (you must pause briefly at the ←←**LOCAL** **ALL**→→ message before continuing past it). Nearest airports in the local group are displayed in order of distance; VORs, NDBs and intersections are displayed in alphabetical order.

NEAREST AIRPORT

At any time, you may press the →**D**→ and left **CRSR** buttons simultaneously to instantly show the nearest airport and its longest runway.

ALL WAYPOINTS (on either readout)

Turn the *small* knob to the right to go into the **ALL** group (pause briefly at the ←←**LOCAL** **ALL**→→ message). Scan through to find the waypoint you wish to use.

ENTERING the IDENTIFIER (on either readout)

To select a waypoint by entering its identifier:

1. Press **CRSR**.
2. Turn the *small* knob to scan through the alphabet, selecting the first character of the identifier.
3. Turn the *large* knob to the right to move the flashing cursor over to the next character.
4. Repeat steps 2 and 3 to enter the remaining characters.
5. Press **CRSR** to turn off the flashing cursor.

TB10/N189TB

M1 LORAN

6. SIMPLE NAVIGATION

FLYING DIRECT to a waypoint:

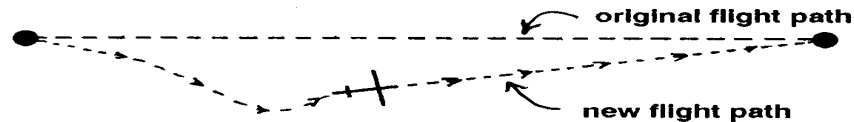
First, display the waypoint in the **PRIMARY** readout using any method described in Section 4.

Then, to fly to the waypoint:

1. Press **-D→** (**Direct**).
2. Press **ACK**.
The **PRIMARY** readout switches automatically to the **TRK** function.
3. Turn small primary knob to choose the desired navigation display (see Section 7).

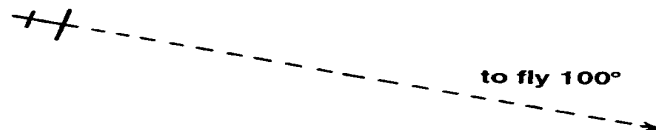
To **RESET** the **CDI** to **CENTER**:

1. Turn the *large primary* knob to **TRK**.
2. Press **-D→**.
3. Press **ACK**.
The desired flight path is shifted to run from your present position direct to the waypoint.



To **FLY A COURSE**:

1. Turn the *large primary* knob to **TRK**.
2. Press **-D→**.
3. Turn the *small primary* knob to select your desired course.
4. Press **ACK**.



TB10/N189TB

M1 LORAN

7. TRACK DISPLAYS

1. Turn *large primary* knob to **TRK**.
2. Turn *small primary* knob to select track data (not all of these displays will appear in all situations):

The lat/long of your starting point:

F 42° 26.2' 71° 25.8'

The lat/long of the waypoint:

W 42° 21.9' 71° 00.8'

The track you are following: (any one of the following may appear, depending on how you specified the track).

W BOS W DIRECT (to a waypoint)
FLYING 247° (flying a heading)
FLYING TO LEG 1 (to a flight plan)
F BED A W BOS W (in a flight plan)

The bearing and distance to the waypoint:

W BOS W 118° 19.3M

Course Deviation Indicator:

[. 0]

Ground Speed and Estimated Time Enroute:

GS 135K ETE 1:38

Bearing of next leg of flight plan:

FLY 035° IN 5:43

Cross-track distance (distance off course):

FLY RIGHT 12M

Estimated time of arrival:

ETA 2:44 Z

Turn the *large secondary* knob to **INFO** to display track data on the **SECONDARY** readout also.

TB10/N189TB

KN 64 DME

3. **Remote mode follows Nav1
switch is in left position for Remote**
5. **In Freq Mode you can explicitly enter a DME frequency
switch is in center position for Freq**
7. **C/S displays speed for Freq Mode
switch is in right position**



TB10/N189TB

Become familiar with the airplane's equipment.. It should be as easy as turning on the radio in your car

Fly with a friend... You fly, he works the nav equipment, then swap

Know you're plane, know what performance is typical... numbers defined in the POH don't always pan out

Beware the gull wing door... You may think it's safely 'up' but it may not be and it could come slamming down on your hand or arm

Make sure front and rear door latches are engaged

