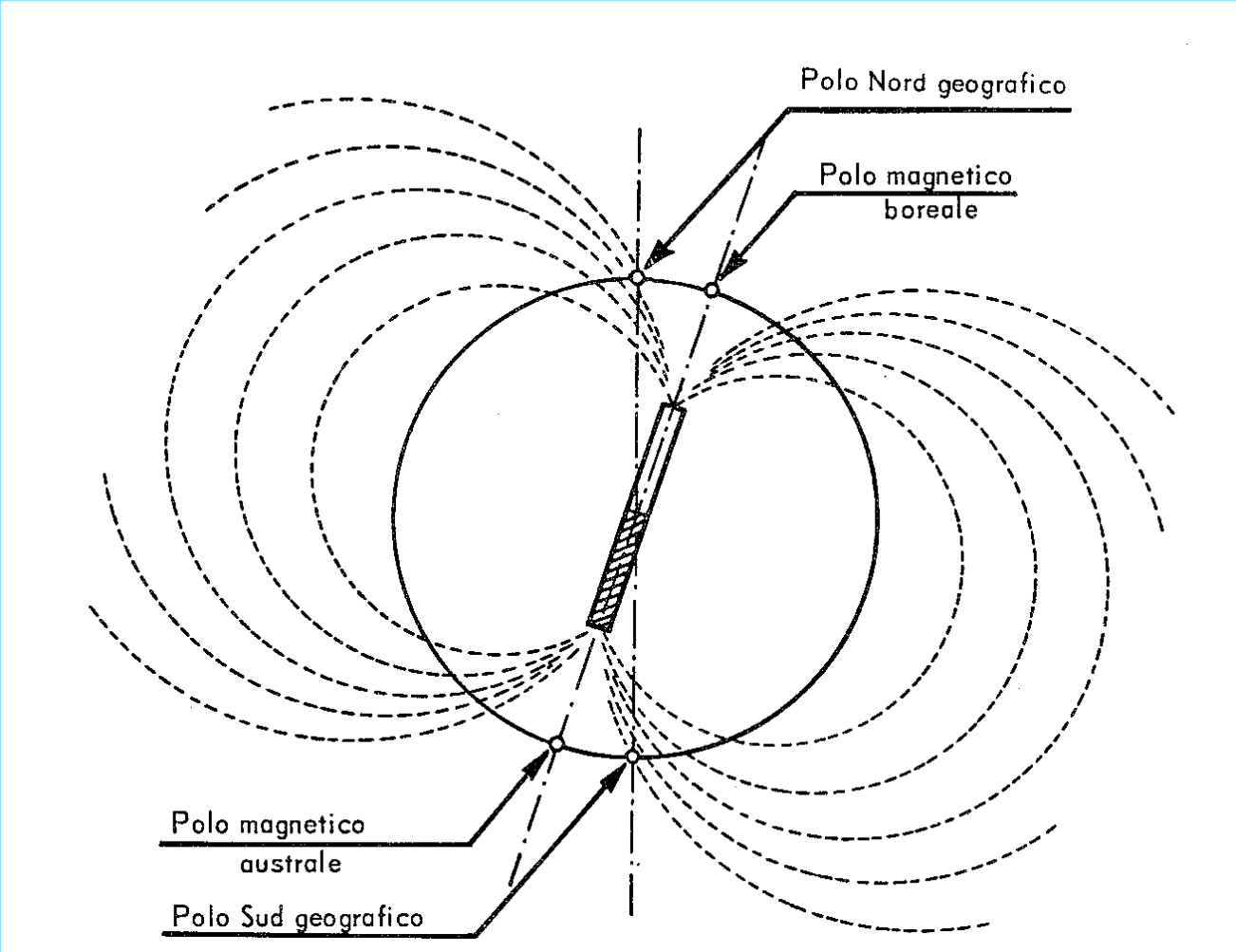
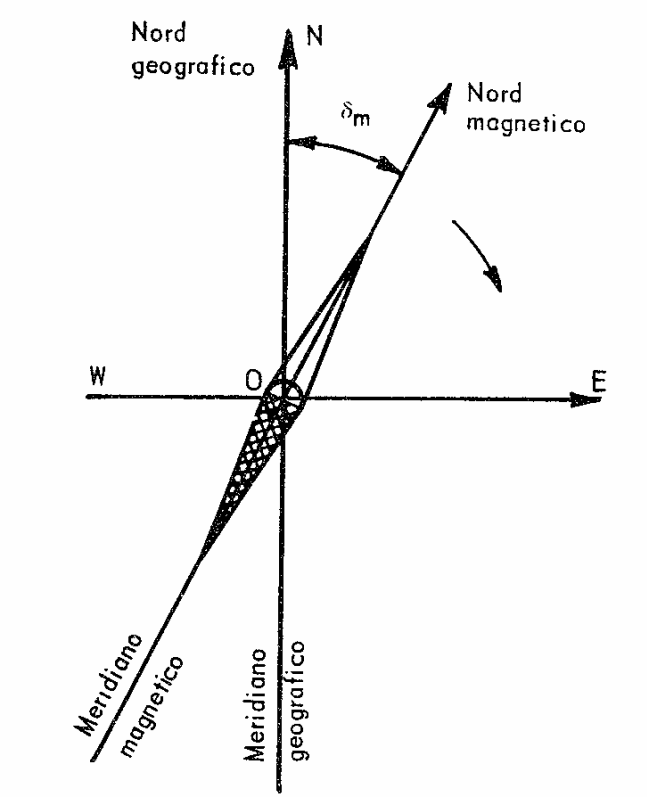
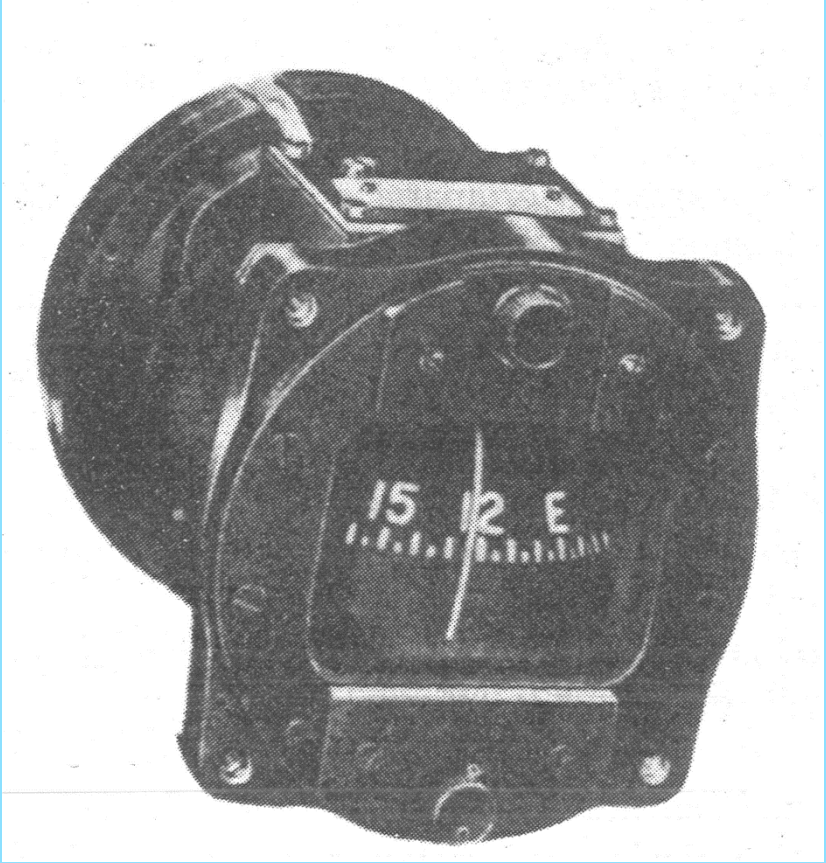
Campo magnetico terrestre



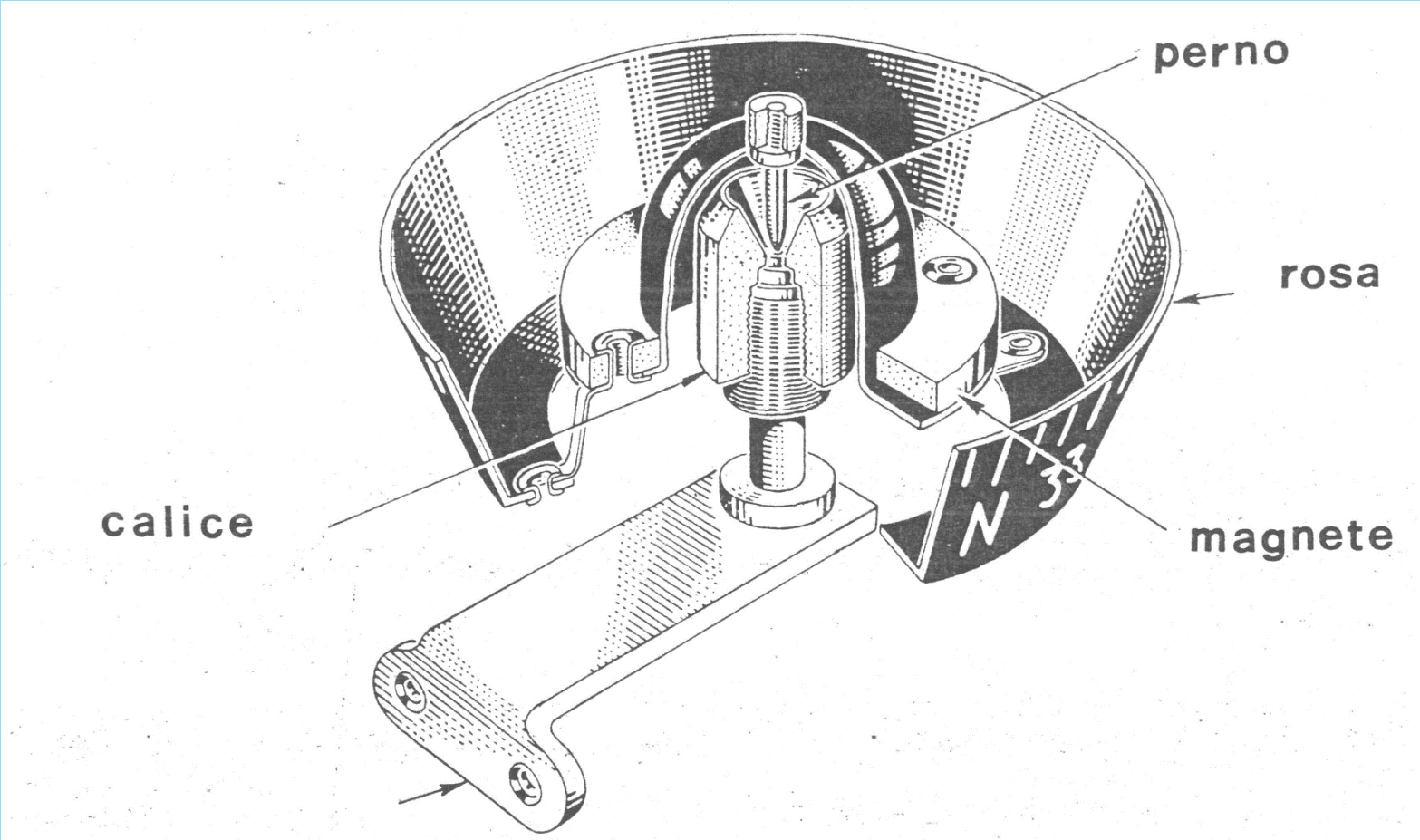
Bussola magnetica





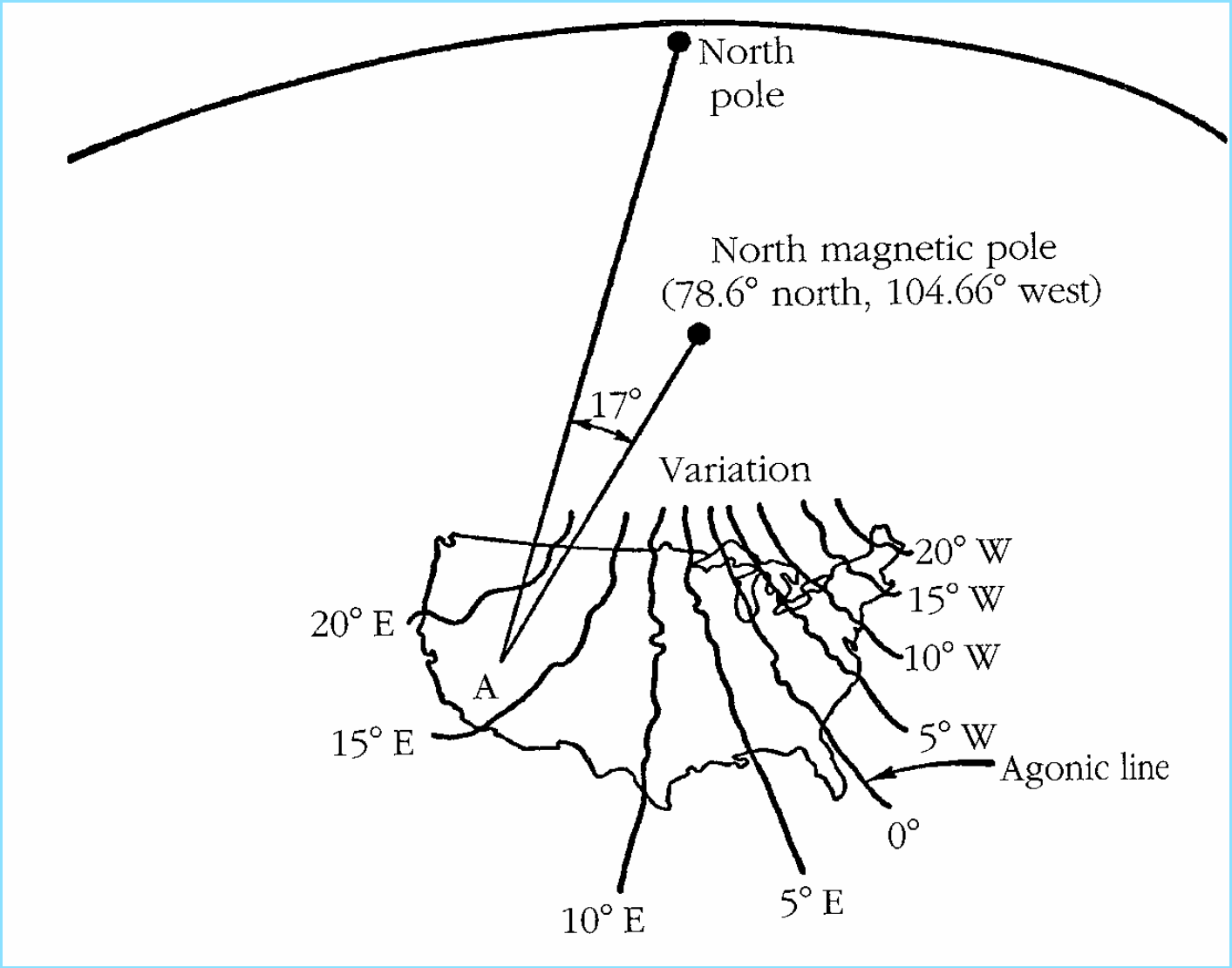
δ_m= declinazione magnetica

Bussola magnetica

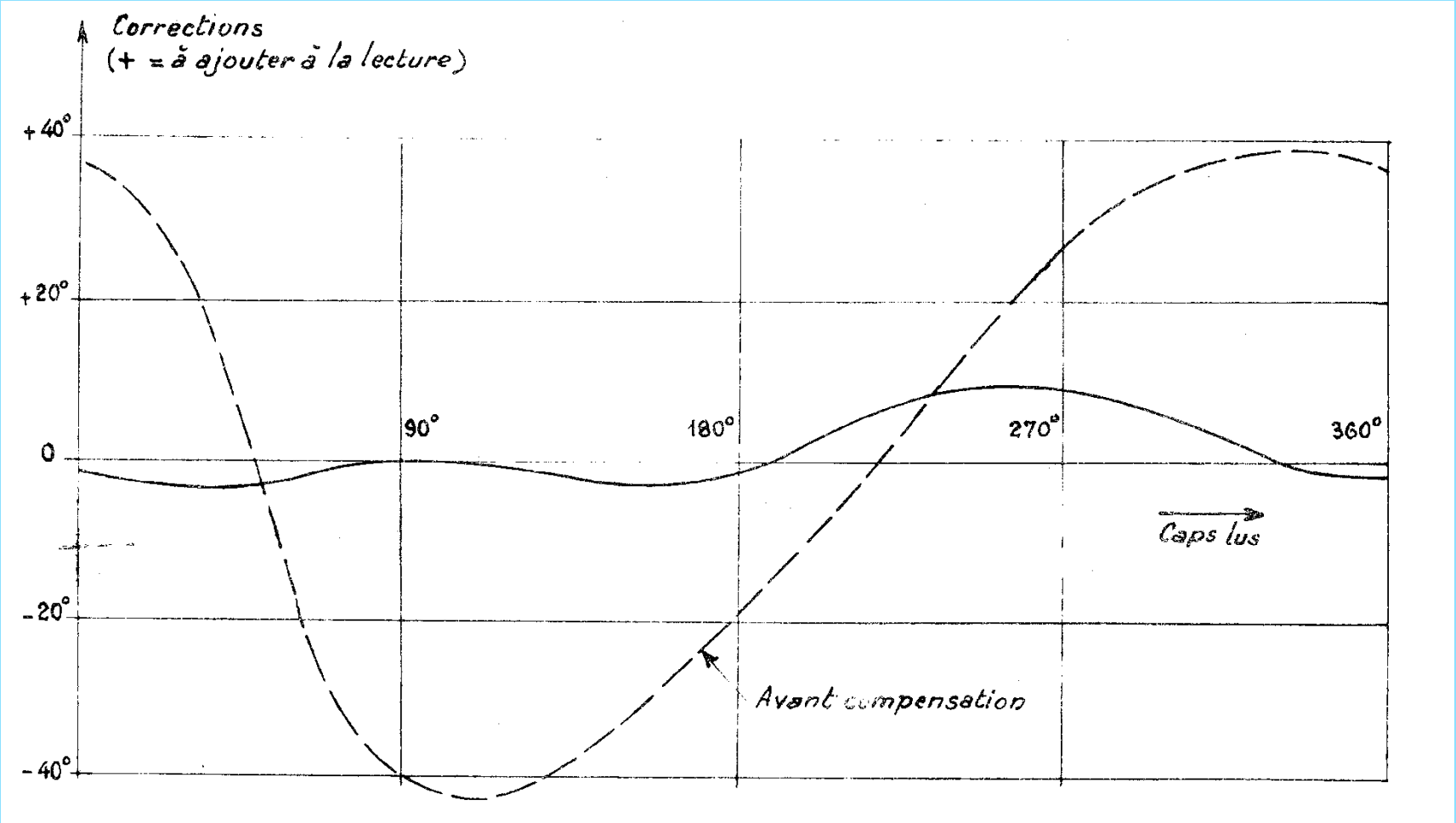


δ_m= declinazione magnetica

Linee isogoniche



Deviazione magnetica



Hard iron magnetism

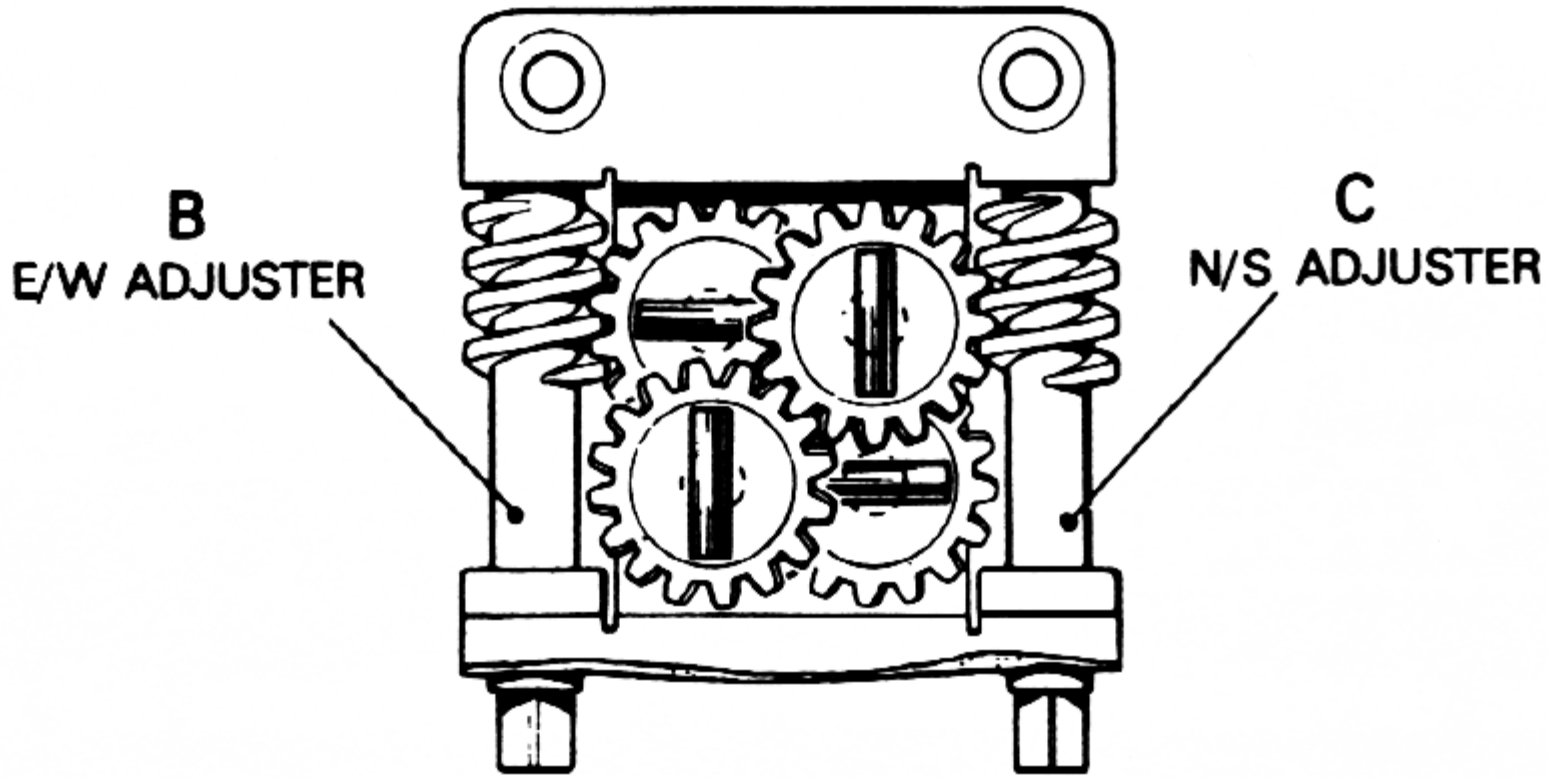
di natura permanente dovuto a componenti costruiti con materiale ferromagnetico.

Soft iron magnetism

di natura temporanea, dovuto a componenti costruiti con materiale che si magnetizza per effetto del campo magnetico terrestre. Esso dipende dalla prua, assetto e posizione sulla terra del velivolo.

$$\mathbf{d} = \mathbf{A} + \mathbf{B}\sin\mathbf{C}_c + \mathbf{C}\cos\mathbf{C}_c + \mathbf{D}\sin 2\mathbf{C}_c + \mathbf{E}\cos 2\mathbf{C}_c$$

$$\mathbf{C}_c = \text{prua dell'aereo}$$


B
E/W ADJUSTER
C
N/S ADJUSTER

Deviazione magnetica

NAVIGATOR'S COMPASS

SWUNG: 29 JUNE BY: H.C.N.

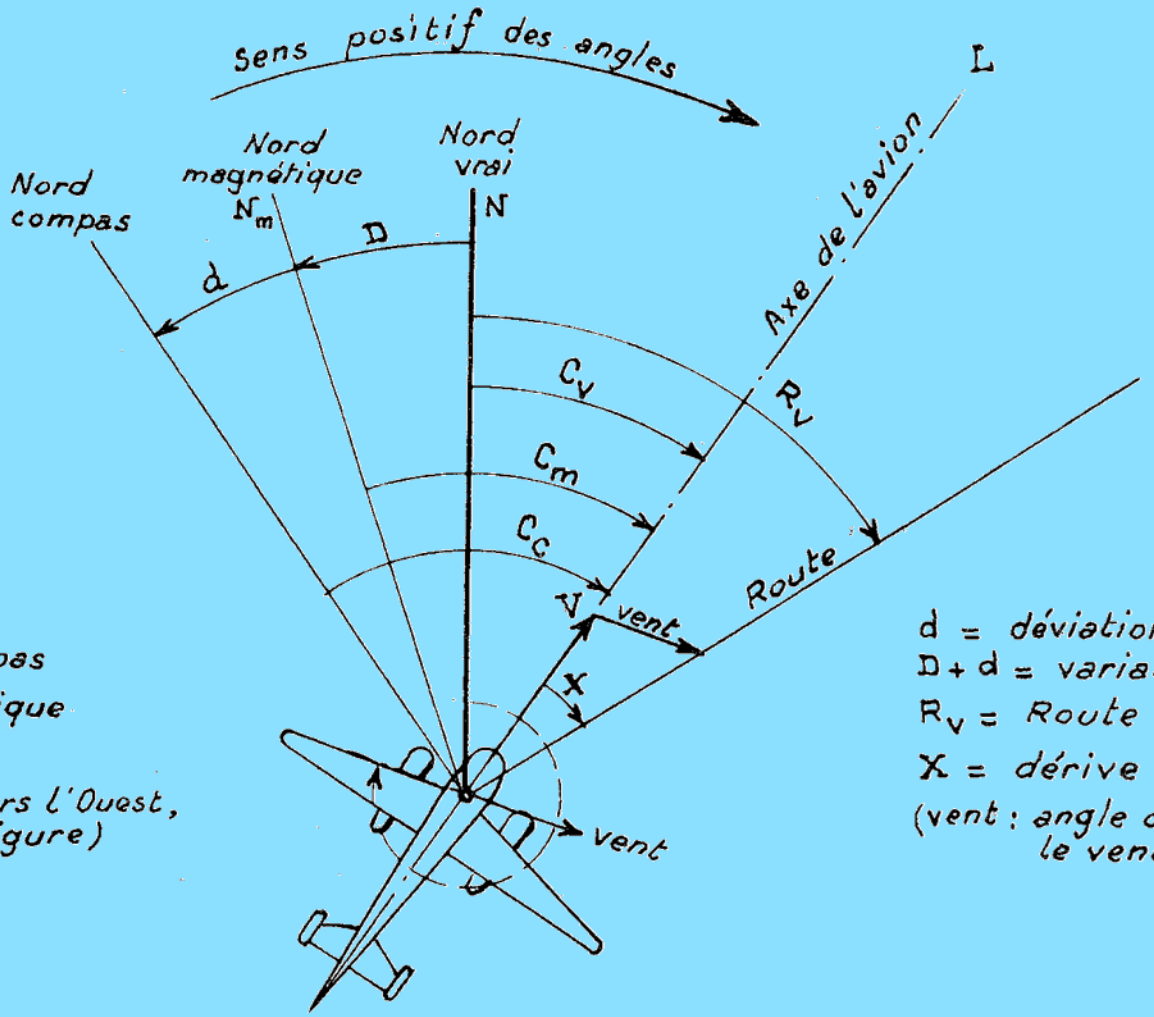
TO FLY	STEER	TO FLY	STEER
N	000	180	177
15	016	195	192
30	031	210	208
45	047	225	223
60	062	240	238
75	078	255	254
90	092	270	270
105	106	285	285
120	120	300	301
135	134	315	316
150	149	330	331
165	163	345	345

Remote compass

Il sensore di campo magnetico viene collocato dove le interferenze siano le minori possibili e quindi anche lontano dal punto di impiego della informazione, che deve essere trasmessa.


COMPASS SYSTEM
GYRO & AMPLIFIER
LUGGAGE COMPT

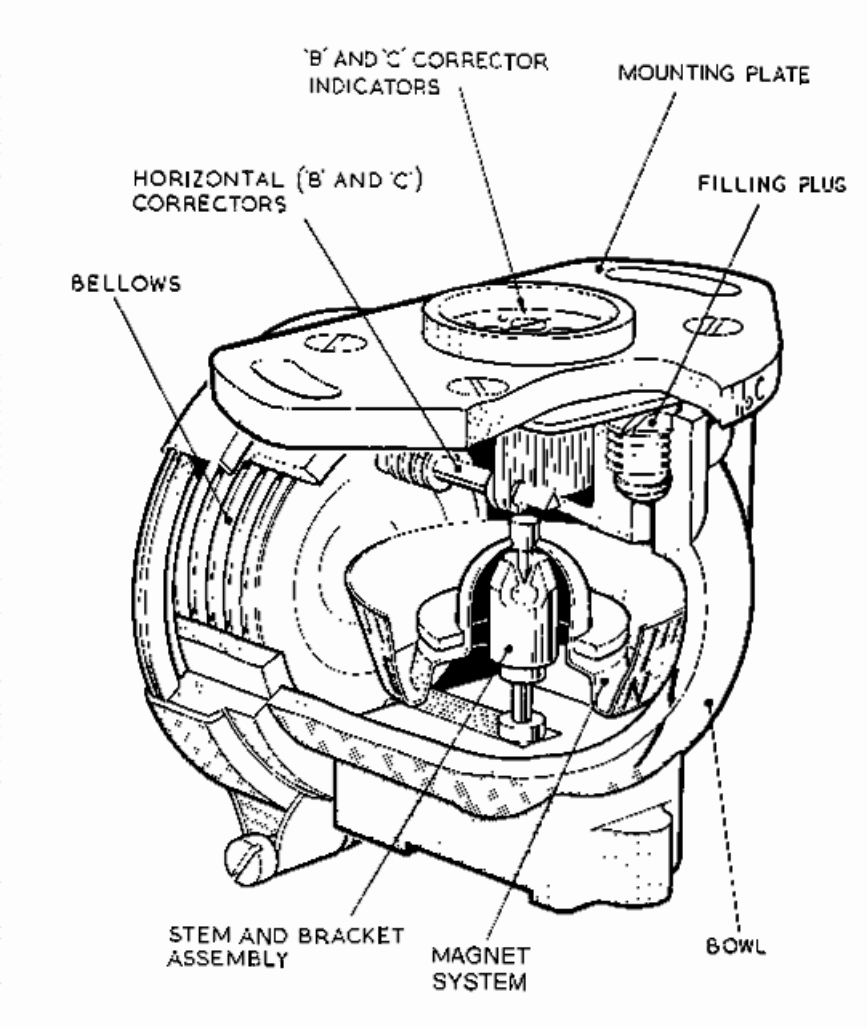
Prue

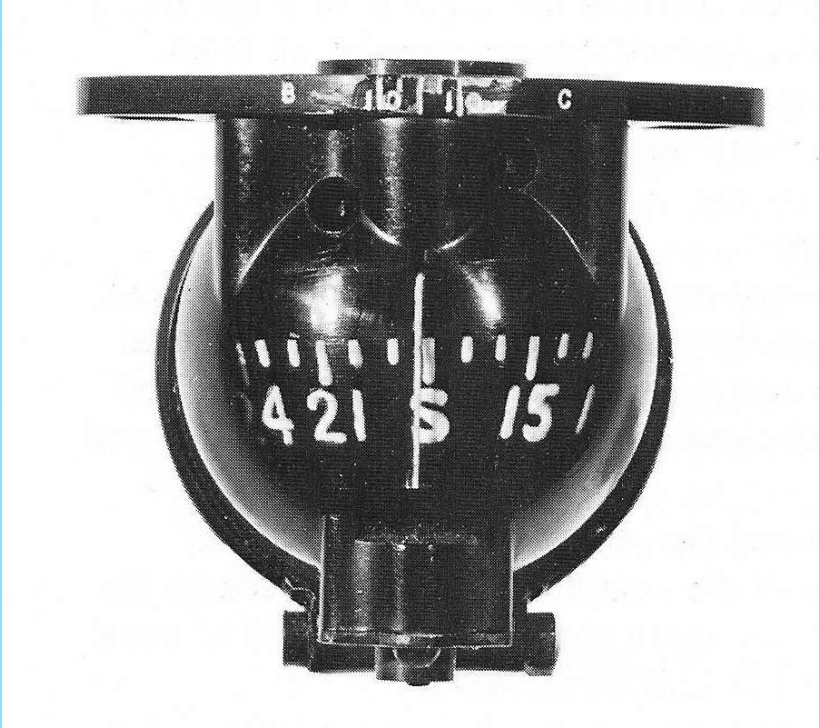


C_v = Cap vrai
C_c = Cap au compas
C_m = Cap magnétique
D = Déclinaison (négative vers l'Ouest, cas de la figure)

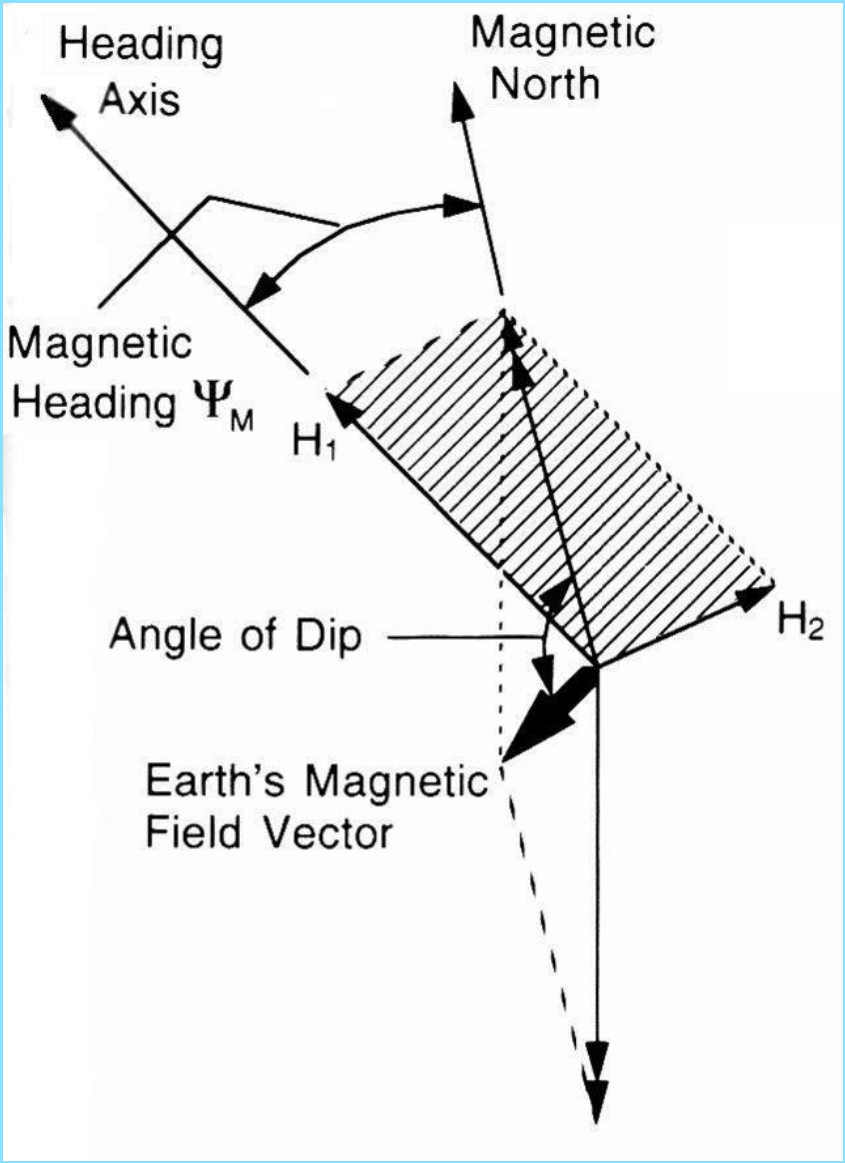
d = déviation = $C_m - C_c$
D + d = variation
R_v = Route vraie
X = dérive
(vent : angle d'où vient le vent).

Bussola magnetica

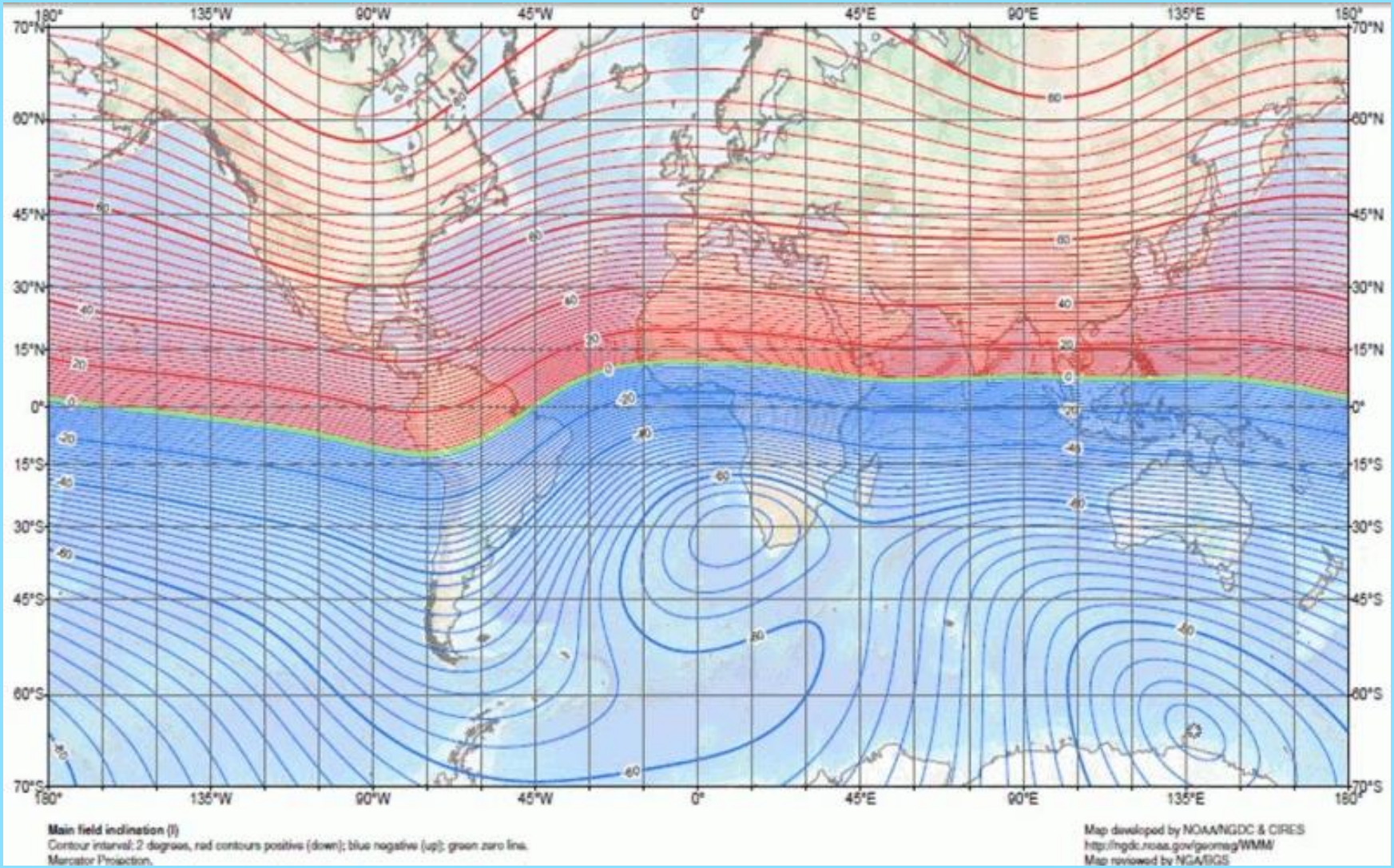




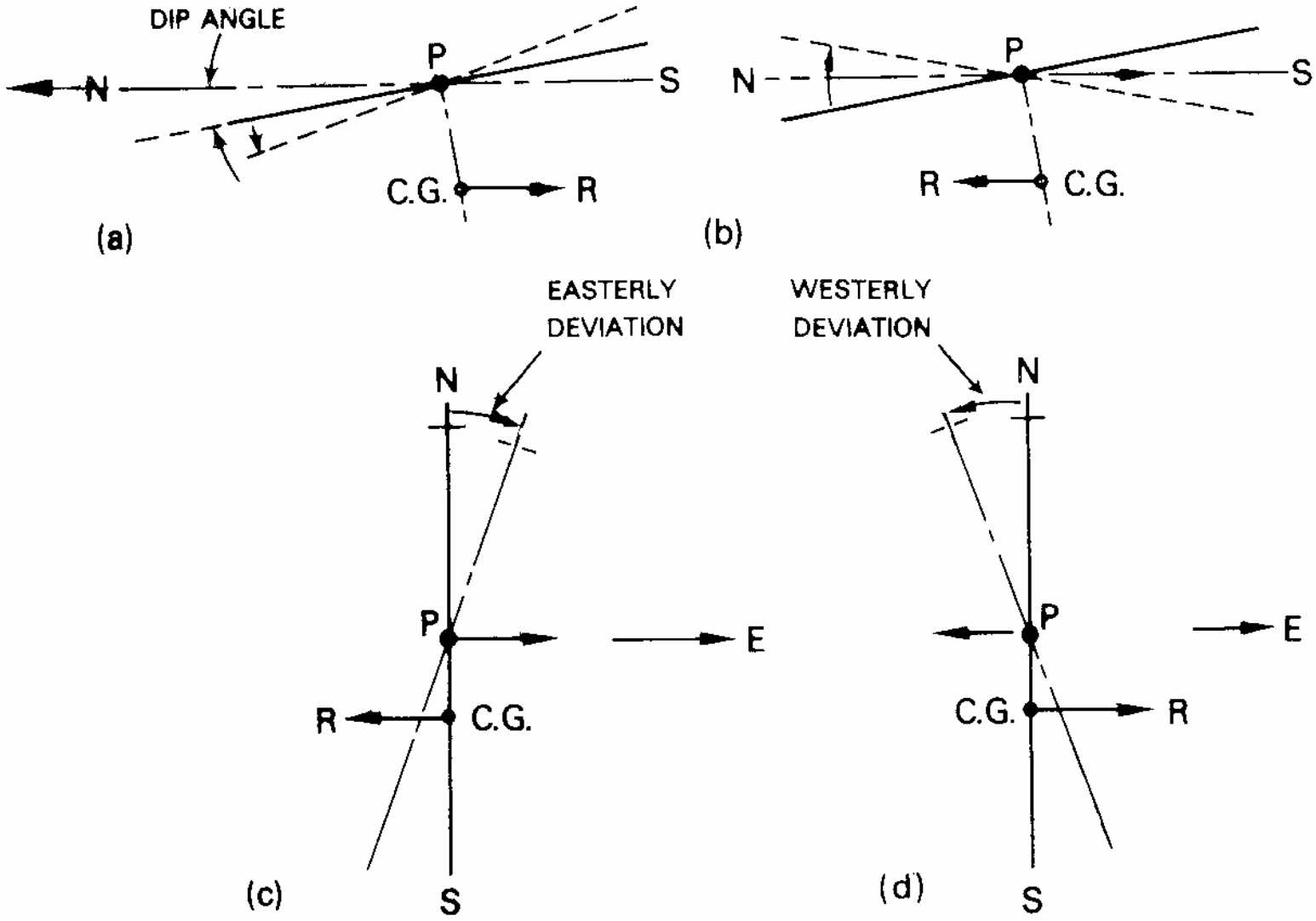
Inclinazione dell'ago magnetico



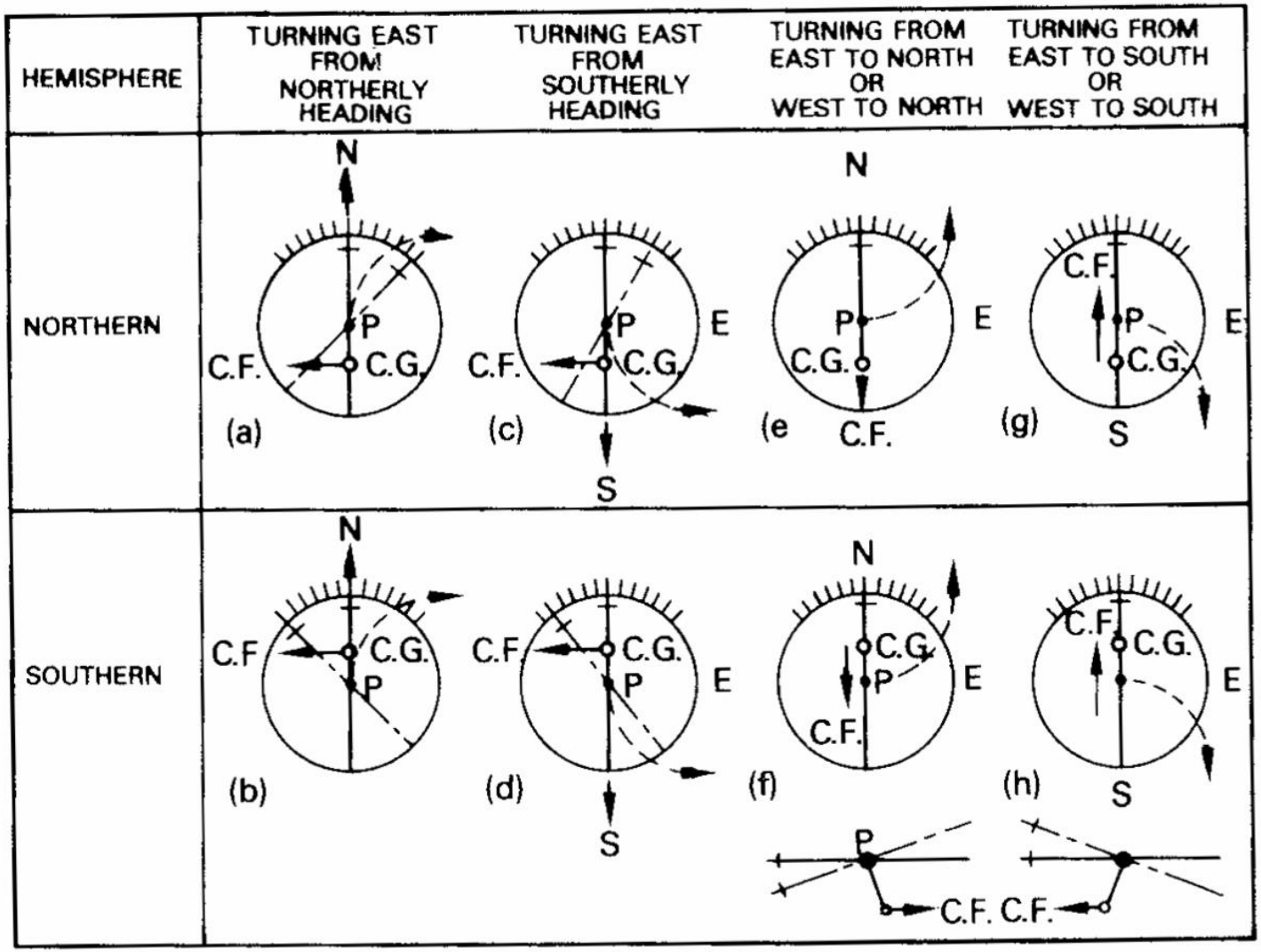
Magnetic Dip



Inclinazione dell'ago magnetico



Effetti delle manovre



Effetti delle manovre

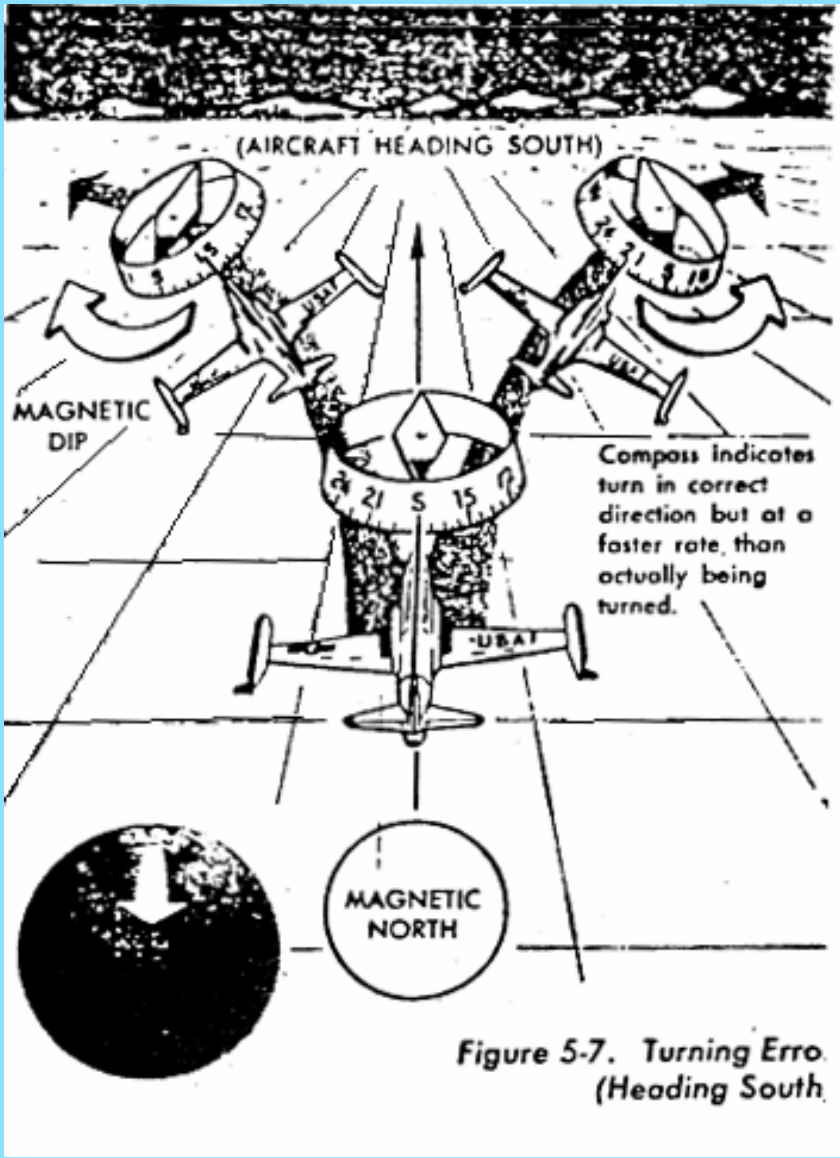


Figure 5-7. Turning Erro
(Heading South

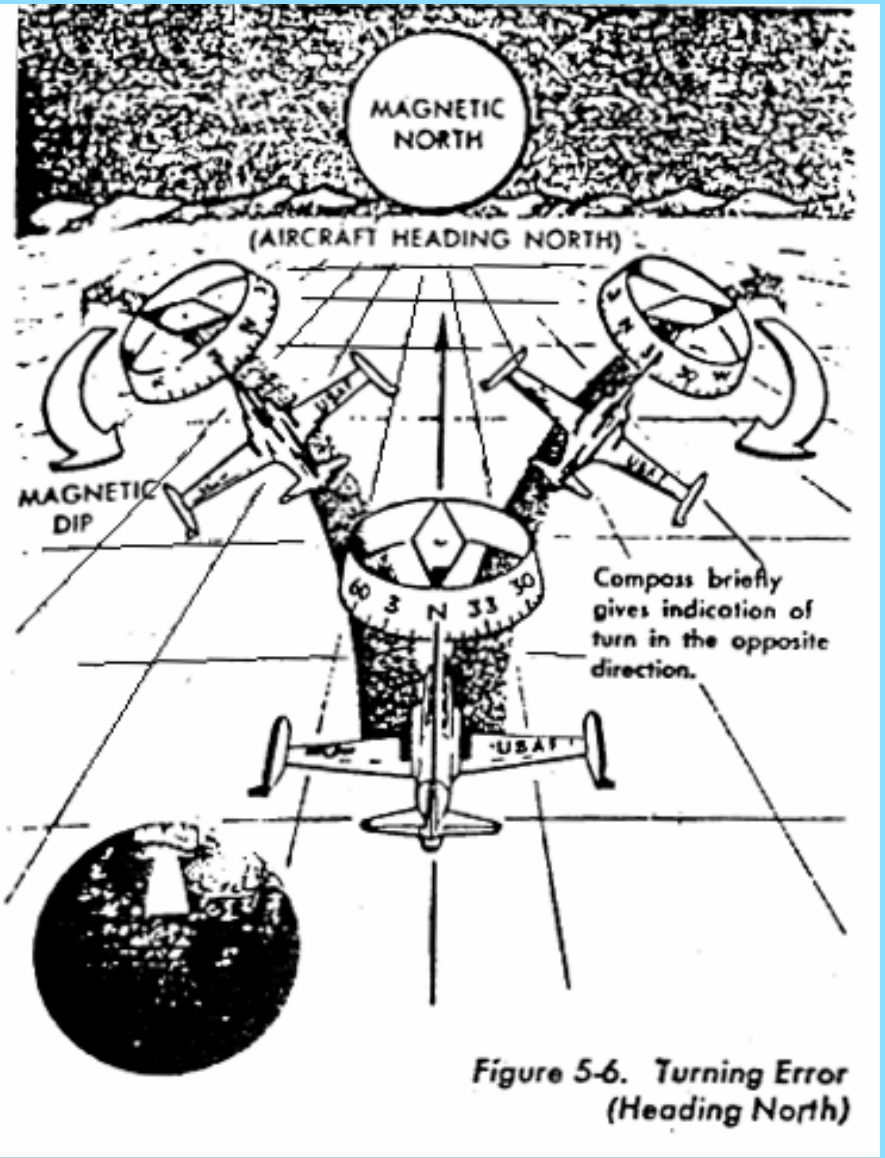


Figure 5-6. Turning Error
(Heading North)

Effetti delle accelerazioni