TABLE • 7.2. Estimated mean annual values of the precipitation rate P, evaporation rate E, runoff rate $P - E$, river runoff rate R_0 from continents into the oceans, evaporation ratio E/P, and runoff ratio $(P - E)/P$ for the various continents and oceans from Baumgartner and Reichel (1975). For comparison, estimates of P, E, and $P - E$ from Sellers (1965) have been added in parentheses.

Region	*Surface area* (10^6 *km*^{2})	P (*mm yr*$^{-1}$)	E (*mm yr*$^{-1}$)	P-E (*mm yr*$^{-1}$)	R_0 (*mm yr*$^{-1}$)	E/P	$(P-E)/P$
Europe	10.0	657 (600)	375 (360)	282 (240)	...	0.57	0.43
Asia	44.1	696 (610)	420 (390)	276 (220)	...	0.60	0.40
Africa	29.8	696 (670)	582 (510)	114 (160)	...	0.84	0.16
Australia	8.9	803	534	269	...	0.67	0.33
[without islands]	7.6]	[447 (470)]	[420 (410)]	[27 (60)]	...	[0.94]	[0.06]
North America	24.1	645 (670)	403 (400)	242 (270)	...	0.62	0.38
South America	17.9	1564 (1350)	946 (860)	618 (490)	...	0.60	0.40
Antarctica	14.1	169 (30)	28 (0)	141 (30)	...	0.17	0.83
All land areas	148.9	746 (720)	480 (410)	266 (310)		0.64	0.36
Arctic Ocean	8.5	97 (240)	53 (120)	44 (120)	307	0.55	0.45
Atlantic Ocean	98.0	761 (780)	1133 (1040)	− 372 (− 260)	197	1.49	− 0.49
Indian Ocean	77.7	1043 (1010)	1294 (1380)	− 251 (− 370)	72	1.24	− 0.24
Pacific Ocean	176.9	1292 (1210)	1202 (1140)	90 (70)	69	0.93	0.07
All oceans	361.1	1066 (1120)	1176 (1250)	− 110 (− 130)	110	1.10	− 0.10
Globe	510.0	973 (1004)	973 (1004)	0 (0)	...	1.10	0

whereas a deficit of precipitation is found in the subtropics of each hemisphere between about 10° and 40° latitude. In the long-term mean, the excess or deficit in each belt has to be compensated by a net meridional divergence or convergence of water in the particular belt. The runoff ratio $(P - E)/P$ gives an idea of the fraction of the precipitation that is involved in the runoff. The values of the evaporation ratio E/P show clearly the high aridity of the subtropics with ratios larger than 1.

We should stress that there is not always a close agreement between the values of P and E published by different authors, as demonstrated by the comparisons in Tables 7.1 and 7.2 with Sellers (1965) values based on similar observations. Usually the individual values of P and E are adjusted subjectively in a rather arbitrary way by assuming certain global and zonal constraints to yield an overall balance between P and E. This procedure imposes serious limitations on the usefulness of the estimates. The differences are even larger when we compare the results from two different methods, such as in the case of $P - E$ where the independent, aerological estimates are given in parentheses (see column 5, Table 7.1).

Over the globe as a whole, evaporation must balance precipitation in the long-term mean. The precipitation in the two hemispheres is almost the same whereas a large difference is found for the evaporation (about 150 mm yr^{-1}). The higher values of evaporation in the Southern Hemisphere result because this hemisphere is largely covered by oceans. The Northern Hemisphere shows a positive water balance ($P - E = 73$ mm yr^{-1}) whereas in the Southern Hemisphere a net negative value of -73 mm yr^{-1} is found. Thus, we are led to the conclusion that a flow of water in the liquid form must take place across the equator from the Northern into the South-