INTERNATIONAL STANDARD

ISO 5878

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AMENDMENT 1
1990-12-01

Reference atmospheres for aerospace use

AMENDMENT 1

Atmosphères de référence pour l'application aérospatiale

AMENDEMENT 1

Reference number
ISO 5878 : 1982/Amd.1 : 1990 (E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Amendment 1 to ISO 5878 : 1982 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles,* Sub-Committee SC 6, *Standard atmosphere.*

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AMENDMENT 1

Page 2, table 2

Replace the unit kPa by hPa.

Page 3, 3.1, second paragraph

Replace the first phrase by the following:

Features typical of the thermal structure of the tropical atmosphere are shown in figure 1 and in table 16.

Page 6

Replace the note by the following:

NOTE — A one- or two-digit number preceded by a plus or minus sign following each entry of pressure and density indicates the power of ten by which that entry should be multiplied.

Page 7, table 4

— For $h = 50\,000$ m, replace $\varrho = 1{,}047\,952 \times 10^{-3}$ kg·m^{-3} by $\varrho = 1{,}047\,852 \times 10^{-3}$ kg·m^{-3}.

— For $h = 56\,000$ m, replace $T = 255{,}521$ K by $T = 255{,}525$ K.

— For $h = 58\,000$ m, replace $\varrho = 4{,}032\,813 \times 10^{-4}$ kg·m^{-3} by $\varrho = 4{,}082\,813 \times 10^{-4}$ kg·m^{-3}.

— For $h = 62\,000$ m, replace $p = 1{,}080\,647 \times 10^{-1}$ hPa by $p = 1{,}680\,647 \times 10^{-1}$ hPa.

— For $h = 64\,000$ m, replace $\varrho = 1{,}879\,963 \times 10^{-4}$ kg·m^{-3} by $\varrho = 1{,}875\,963 \times 10^{-4}$ kg·m^{-3}.

— For $h = 70\,000$ m, replace $p = 5{,}261\,760 \times 10^{-2}$ hPa by $p = 5{,}264\,760 \times 10^{-2}$ hPa.

— For $h = 80\,000$ m, replace $\varrho = 1{,}877\,773 \times 10^{-5}$ kg·m^{-3} by $\varrho = 1{,}877\,743 \times 10^{-5}$ kg·m^{-3}.

Page 13, table 10

For $h = 56\,000$ m, replace $\varrho = 5{,}051\,153 \times 10^{-4}$ kg·m^{-3} by $\varrho = 5{,}041\,153 \times 10^{-4}$ kg·m^{-3}.

Page 16, table 13

For $h = 32\,000$ m, replace $H = 32\,918$ m by $H = 31\,918$ m.

Page 20, table 16, 60° N, *June-July, 4th line*

Replace $H = 23{,}500$ km by $H = 23{,}000$ km.

Page 21, table 17

— 3rd line, 4th column, replace 40/38 (245) by 40/38 (245)*.

— Add the following note:

* Numerator: number of launchings in December-January; denominator: number of launchings in June-July; in brackets: total number of launchings.

Page 21, table 18

— 6th line, 2nd column, replace 30° 57′ S by 31° 09′ S.

— 6th line, 3rd column, replace 136° 31′ E by 136° 48′ E.

— 7th line, 3rd column, replace 160° 29′ W by 106° 29′ W.

Page 24, table 21

— 6th line, 9th column, replace 224 by 226.

— 17th line, 6th column, replace 274 by 276.

Page 25, table 21

29th line, 9th column, replace 220 by 225.

Page 26, table 21

— 22nd line, 3rd column, replace 238 by 234.

— 22nd line, 9th column, replace 235 by 234.

Page 27, table 21

— 13th line, 4th column, replace 210 by 310.

— 22nd line, 3rd column, replace 242 by 240.

— 22nd line, 4th column, replace 252 by 262.

— 22nd line, 8th column, replace 244 by 241.

Page 28, table 22

— 6th line, 10th column, replace $1{,}841\,01 \times 10^{-2}$ by $1{,}841\,0 \times 10^{-2}$.

— 10th line, 10th column, replace $1{,}026\,9 \times 10^{-4}$ by $1{,}026\,9 \times 10^{-3}$.

Pages 34 to 37

Replace the term "geometrical" by "geometric".

Page 34, figure 1, 60° N

Modify the December-January curve between the 35 km and 80 km altitudes so that it shows a constant temperature of 251,35 K for the layer between 49,3 km and 51,3 km.

Page 36, figure 3, 60° N *Winter*

Modify the "warm" curve between the 35 km and 80 km altitudes so that it shows a constant temperature of 267,15 K for the layer between 42,2 km and 48,3 km.