

# INTERNATIONAL STANDARD

**ISO  
5878**

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1982-04-15

**AMENDMENT 1**  
1990-12-01

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## Reference atmospheres for aerospace use AMENDMENT 1

**iTeh STANDARD PREVIEW**  
*Atmosphères de référence pour l'application aérospatiale*  
**AMENDEMENT 1**  
**(standards.iteh.ai)**

ISO 5878:1982/Amd 1:1990

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

## Foreword

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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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International Organization for Standardization

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# Reference atmospheres for aerospace use

## 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  $\rho = 1,047\,952 \times 10^{-3} \text{ kg}\cdot\text{m}^{-3}$  by  $\rho = 1,047\,852 \times 10^{-3} \text{ kg}\cdot\text{m}^{-3}$ .
- For  $h = 56\,000$  m, replace  $T = 255,521$  K by  $T = 255,525$  K.
- For  $h = 58\,000$  m, replace  $\rho = 4,032\,813 \times 10^{-4} \text{ kg}\cdot\text{m}^{-3}$  by  $\rho = 4,082\,813 \times 10^{-4} \text{ kg}\cdot\text{m}^{-3}$ .
- 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  $\rho = 1,879\,963 \times 10^{-4} \text{ kg}\cdot\text{m}^{-3}$  by  $\rho = 1,875\,963 \times 10^{-4} \text{ kg}\cdot\text{m}^{-3}$ .
- 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  $\rho = 1,877\,773 \times 10^{-5} \text{ kg}\cdot\text{m}^{-3}$  by  $\rho = 1,877\,743 \times 10^{-5} \text{ kg}\cdot\text{m}^{-3}$ .

### Page 13, table 10

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

### 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.

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**UDC 551.51/54**

**Descriptors :** aerodynamics, atmospheres, standard atmosphere, characteristics, meteorological data, computation.

Price based on 1 page

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