

CRPN pensions are calculated according to the rules set forth by articles R.426-5-c, R.426-5-d, R.426-16-1, and R.426-16-1-1 of the French Code of Civil Aviation. To ensure that we accurately adhere to the provisions of these articles, given that the terms of the decree are stated in **yearly** values, our calculation rules are based on average indexed **daily** earnings.

Article R.426-5-c: Career average indexed earnings

A member's average indexed daily earnings value (Sqm) is calculated based on their Career indexed yearly earnings (SIC). The Career indexed yearly earnings value (SIC) is equal to a year's contribution-liable earnings divided by the Adjusted Wage Variation Index (IVSC) applicable to the given pay period.

N.B.: Contribution-liable earnings are stated in French francs through 2001 and in Euros from 2002 on. When pensions are calculated, all indexed earnings are stated in Euros.

⇒ **Case No. 1: TT⁽¹⁾ time less than or equal to 9,000 days, or 25 years**

The member's averaged indexed daily earnings value (**Sqm**) is equal to the sum of their indexed yearly earnings (\sum SIC) divided by their total number of days (TT) accrued through contributions.

$$\text{Sqm} = \sum \text{SIC} / \text{TT}.$$

⇒ **Case No. 2: TT⁽¹⁾ time greater than 9,000 days, or 25 years**

The member's average indexed daily earnings value for the 25 best years (**Sqm₂₅**) is equal to the sum of their 25 best indexed yearly earnings (\sum SIC₂₅) divided by 9,000 days.

$$\text{Sqm}_{25} = \sum \text{SIC}_{25} / 9000.$$

Article R.426-5-d: Topped-up average indexed earnings

When a member has accrued more than twenty-five years through contributions, the earnings for their additional years are partially taken into account toward their pension calculation, regardless of whether these additional years were accrued through contributions or free of charge pursuant to article R. 426-13, paragraphs e and f of the French Code of Civil aviation (on condition that the member had accrued 20 years of civil service as of July 1, 1995). Any service credited free of charge to the member's account must have been preceded and followed by periods of civil service.

The member's topped-up average indexed daily earnings value (**Smimq**) is calculated as follows:

$$\text{Smimq} = \left(\text{Sqm}_{25} \times \frac{9000 + \text{NJV} \times \text{TV}}{a} \right) + \left(\frac{\sum \text{SIC} - 9000 \times \text{Sqm}_{25}}{a} \times \text{TV} \right)$$

(1) Length of career is taken into account as follows:

TT = Total Time in days accrued through contributions (one year = 360 days and one month = 30 days)

Definitions:

⇒ “**a**” is the lower of the following two values: either the total number of days accrued through contributions over the member’s career $TT^{(1)}$ or a reference number of days that has been set for the year the pension becomes payable, according to the table below:

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027 and beyond
Reference number of days	9360	9720	10080	10440	10800	11160	11520	11880	12240	12600	12960	13320	13680	14040	14400	TT*

(1) TT: Total Time in days accrued through contributions

⇒ **NJV**: periods counted in days, preceded and followed by civil service, and credited to the member’s account pursuant to article R.426-13, paragraphs e and f of the French Code of Civil Aviation.

⇒ Σ **SIC**: sum of the member’s career indexed earnings.

⇒ **TV** is the valuation rate for years beyond the member’s best 25. It is capped at 1:

$$TV = 0,4 + 0.02 * [\text{Min}(55, \text{age}) - 50] + (0.02 + b) * \text{Max}(0, \text{age} - 55) \\ + 0.02 * [\text{Min}(30, TT/360) - 25] + (0.02 + b) * \text{Max}[0, (TT/360 - 30)]$$

The “**b**” value is determined by the member’s pension effective year, as shown in the table below:

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 and beyond
b	0.002	0.004	0.006	0.008	0.010	0.012	0.014	0.016	0.018	0.020

ARTICLES R.426-16-1 & R.426-16-1-1: How monthly pensions are calculated

Pensions can be made up of the three components listed below: Pension, Bonus, and Top-up:

⇒ When a member’s pension is calculated, “TT” time taken into account is capped at their number of “a” days, as determined by their pension effective year (see table above).

⇒ “TT” time taken into account when calculating any top-up or bonus is capped at 9,000 days (25 years).

MONTHLY PENSION (P)

When a member's pension is calculated, their career average salary is divided into two separate amounts on the basis of France's yearly social security ceiling (yearly PSS).

⇒ The 1st amount is capped at k times the yearly PSS, with k serially increasing from **3.55** in 2012 to **4** in 2021 (**3.6** in 2013, **3.65** in 2014, **3.7** in 2015, **3.75** in 2016, **3.8** in 2017, **3.85** in 2018, **3.9** in 2019, **3.95** in 2020, and **4** in 2021).

⇒ The 2nd amount is capped at 8 times France's yearly Social Security ceiling (PSS).

The 1st amount is assigned a pension rate of 1.85% per year accrued (capped at the member's number of "a" days, as determined by their pension effective year, divided by 360) and the 2nd amount is assigned a rate of 1.40%. The sum of these two amounts is then multiplied by the "IVSC" (adjusted wage variation index).

⇒ If S_{qm} or $S_{mimq} <$ the cap of the 1st daily amount, or $k(\text{yearly PSS}) / 360 / \text{IVSC}$

$$P = S_{qm} \text{ ou } S_{mimq} \times 1.85\% / 12 \times a \times \text{IVSC} - \text{any rate reduction}^{(1)}$$

⇒ If S_{qm} or $S_{mimq} \geq$ the cap of the 1st daily amount, or $k(\text{yearly PSS}) / 360 / \text{IVSC}$

$$P = \left[\left(S_{qm} \text{ ou } S_{mimq} \times \frac{1.40\%}{12} \right) + \left(\frac{k(\text{daily PSS})}{\text{IVSC}} \times \frac{(1.85\% - 1.40\%)}{12} \right) \right] \times a \times \text{IVSC} - \text{décote}^{(1)}$$

a = is the lower of the following two values: either the total number of days accrued through contributions over the member's career *TT* or a reference number of days that has been set for the year the pension becomes payable, as shown in the table above:

PSS = France's social security ceiling

MONTHLY BONUS (B)

The monthly bonus is paid if a member has had, or qualifies as having raised, at least three children:

$$B = \text{yearly PSS} / 12 \times 0.12\% \times \text{Min}(9000, TT) / 360 - \text{any rate reduction}^{(1)}$$

TT = total time in days accrued through contributions

MONTHLY TOP-UP (M)

The top-up is paid when a pension is claimed with no rate reduction beginning at or after the age of full-rate entitlement, the year the pension becomes payable, and continuing up to the age appearing in article L.161-17-2 of the French Social Security code. The top-up is calculated as follows:

$$M = \text{yearly PSS} / 12 \times 0.8\% \times \text{Min}(9000, TT) / 360$$

TT = total time in days accrued through contributions

(1) Rate reduction (**article R.426-11 of the French code of civil aviation**)

Any rate reduction is calculated on the basis of the difference between the member's age, year count, or "age + year count" differential and a benchmark age, year count, or "age + year count" differential.

Year	Pensions made payable before age 55				Pensions made payable at or after age 55		
	Benchmark age	Benchmark year count	How the 2 differentials are calculated	How the rate reduction is calculated	Benchmark age + year count	How the differential is calculated	How the rate reduction is calculated
2012	50.5	26	Age differential = (benchmark age – member's age)	Bigger of the 2 differentials X 5%	76	"Age + year count" differential = (reference "age + year count" – member's "age + year count")	"Age + year count" differential X 5%
2013	51	26.5			76.5		
2014	51.5	27			77		
2015	52	27.5			77.5		
2016	52.5	28	and		78		
2017	53	28.5	Year count differential = (benchmark year count – member's year count)		78.5		
2018	53.5	29			79		
2019	54	29.5			79.5		
2020	54.5	30			80		
2021	55	30			80		

From 2022, the rate reduction is calculated as follows:

$$\text{Rate reduction} = (\text{number of reference annuities for full rate} - \text{number of annuities validated by the member}) \times 5\%$$

To find out the number of reference annuities for the full rate, refer to the [summary table of conditions of liquidation from 2022](#).