

MINISTRY OF DEFENSE

AERONAUTICS COMMAND SÃO PAULO AERONAUTICAL MATERIAL PARK ENGINE SUBDIVISION

MATERIAL EXAMINATION AND EVALUATION REPORT

1 - EXAMINING THE MATERIAL

<u>Material specification</u>: The materials examined are six turboprop engines, for C-95 aircraft, manufactured by *Pratt & Whitney Canada CIE*, originating in Canada, whose NSN/NEA is 2840-FA-012-2784, PN PT6A-34 and *Serials* PC-E51308, PC-E56261, PC-

E57393, PC-E57101, PC-E57336 and PC-E57334 according to SILOMS 11G, screen CTR0114P v.10.39, accessed on December 6, 2024, as shown in the figures below:

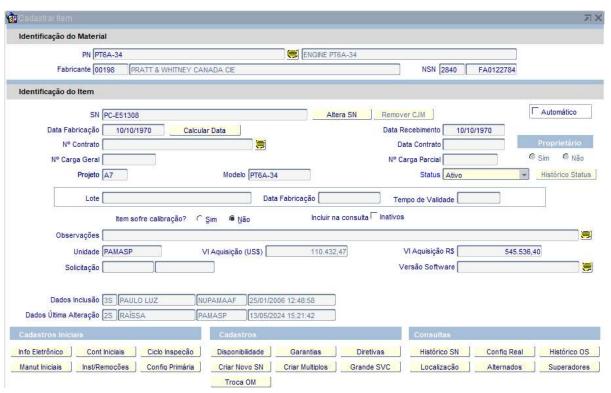


Figure 1: Screenshot of SILOMS CTR0114P v.10.39 with SN PC-E51308 engine data

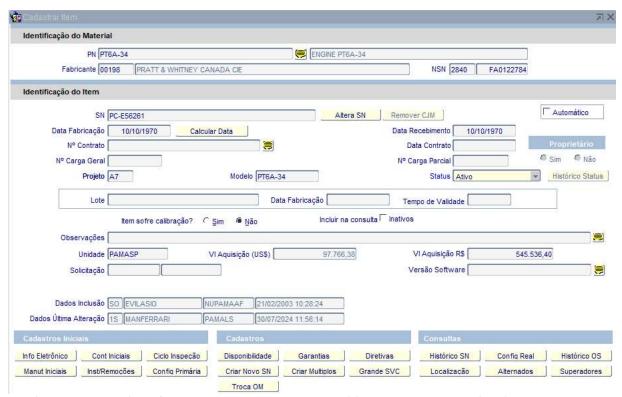


Figure 2: Screenshot of SILOMS CTR0114P v.10.39 with SN PC-E56261 engine data

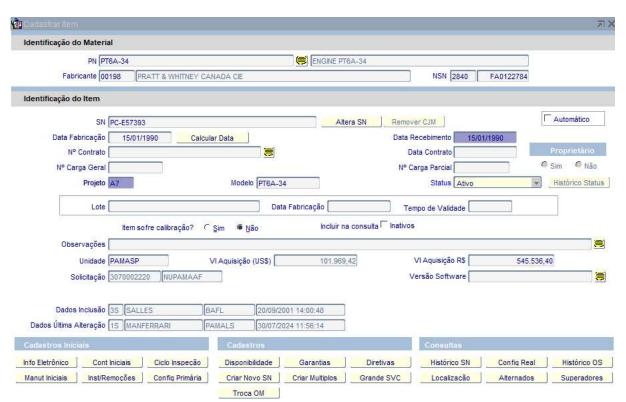


Figure 3: Screenshot of SILOMS CTR0114P v.10.39 with SN PC-E57393 engine data

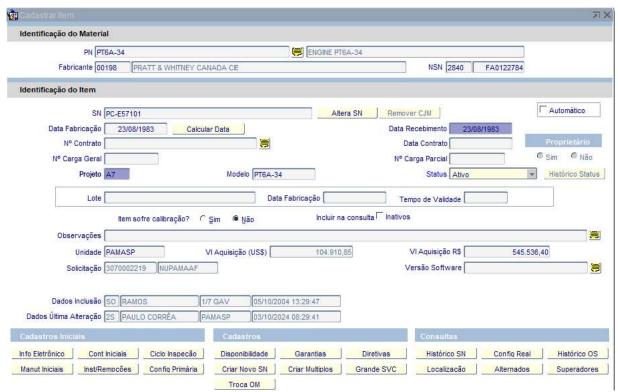


Figure 4: Screenshot of SILOMS CTR0114P v.10.39 with SN PC-E57101 engine data

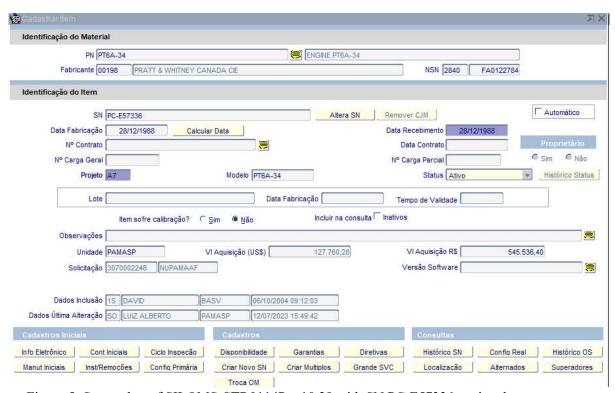


Figure 5: Screenshot of SILOMS CTR0114P v.10.39 with SN PC-E57336 engine data

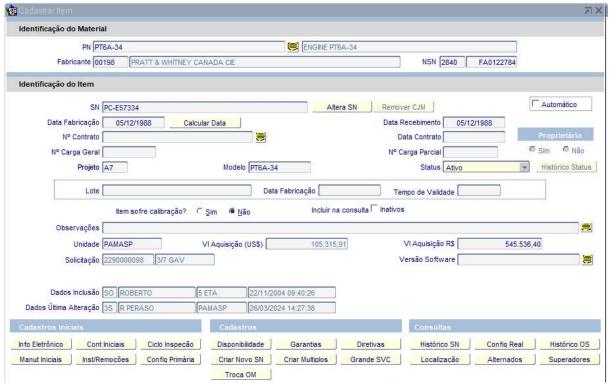


Figure 6: Screenshot of SILOMS CTR0114P v.10.39 with SN PC-E57334 engine data

Reason for **manufacture:** In view of the uneconomical state of repair of the engine, the item will be used as a *core* in the purchase by Exchange of another OVERHAULED engine.

Material Condition: The engines of PN PT6A-34 and Serials PC-E51308, PC-E56261, PC-E57393, PC-E57101, PC-E57336 and PC-E57334 were condemned by the PAMASP Engine Workshop and are therefore classified as Class C "Scrap" material, as stated in letter "d" of item 4.4.2.4.3, and item 17.4.1.3 of MCA 67-1/2007 (Supply Manual), which characterizes condemned materials in the Parks' Technical Divisions.

Acquisition Value: The acquisition value of the items examined, as shown in Figures 1 to 6, was verified on December 6, 2024, through the Integrated Material and Services Logistics System (SILOMS), with the unit values as shown in the table below:

SERIAL NUMBER	VALUE
PC-E51308	R\$ 545.536,40
PC-E56261	R\$ 545.536,40
PC-E57393	R\$ 545.536,40
PC-E57101	R\$ 545.536,40
PC-E57336	R\$ 545.536,40
PC-E57334	R\$ 545.536,40
TOTAL:	R\$ 3.273.218,40

Solution/Destination to be given to the materials: The goods examined, after the conclusion of this Term of Examination, should be excluded from Air Force assets, as they are unserviceable for the respective purposes and irrecoverable, therefore it is recommended that the items, if they have usable raw material, should be demilitarized or de-characterized, and the products of disassembly, which have commercial values, should be sold in the form of

sale, as prescribed in letter "a" of item 4.1 of DCA 400-77/2014 (Disposal of Aeronautical and War Material).

Other clarifications deemed necessary: No change.

Total Value of the Term: R\$ 3,273,218.40 (three million, two hundred and seventy-three thousand, two hundred and eighteen reais and forty centavos).

2 - MATERIAL VALUATION

2.1) PT6A-114 engines according to the table below:

PN	SERIAL NUMBER	VALUE
PT6A-34	PC-E51308	R\$ 545.536,40
PT6A-34	PC-E56261	R\$ 545.536,40
PT6A-34	PC-E57393	R\$ 545.536,40
PT6A-34	PC-E57101	R\$ 545.536,40
PT6A-34	PC-E57336	R\$ 545.536,40
PT6A-34	PC-E57334	R\$ 545.536,40
·	TOTAL:	R\$ 3.273.218,40

2.2) PT6A-34 motor (PN: PT6A-34) S/N: PC-E51308

- a) Indication of the Number of the Examination Term that Examined the Material: As per the examination carried out in item 1 of this report.
- **b) Material Specification:** The turboprop aero engine model PT6A-34 (*PN*: PT6A-34) *S/N*: PC-E51308 from the manufacturer *Pratt & Whitney* Canada was received by the FAB on October 10, 1970. The engine has a total of 17145:10 flight hours and 15695 cycles since new.

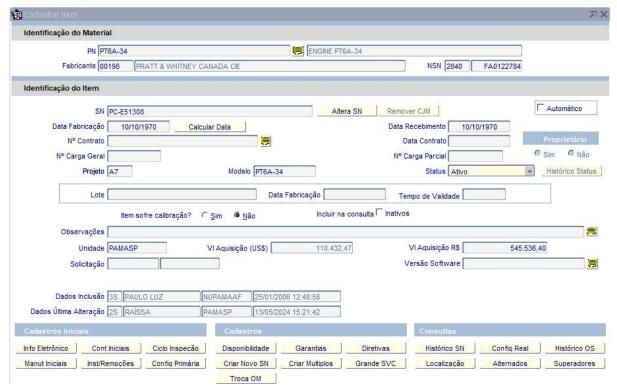


Figure 7: PT6A-34 S/N: PC-E51308. Data taken from SILOMS screen CTR0114P on 06/12/2024.

- c) Acquisition Value: R\$ 545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents).
- **d)** Current value: R\$ 545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents).

The purchase price of the engine was R\$545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents) in 1970, and since then no monetary correction index has been applied to this value.

The Term of Examination classified the motor as "IN STATE - Awaiting Recovery", as prescribed by item 17.4.1.2 of MCA 67-1/2007 (Supply Manual) and ANTIECONOMIC, according to the breakdown contained in letter "c", of Item 2.14.8.1.1, Electronic Asset Management Manual, Section D, of RADA-e, RCA 12-1, updated on April 16, 2024.

As this is permanent movable property considered uneconomical and classified according to account 12311.01.14 of item 7.4.18.2 of the Electronic Manual for Budgetary, Financial and Asset Execution (RADA-e), the equivalent of a residual value of 10% (ten percent) is obtained, therefore a total of R\$ 54,553.64 (fifty-four thousand, five hundred and fifty-three reais and sixty-four cents).

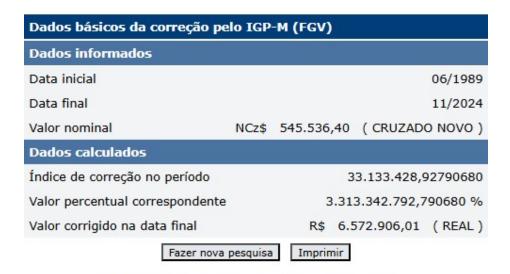
However, if the General Market Price Index (IGP-M) is applied for monetary correction, the current value will be R\$6,572,906.01 (six million, five hundred and seventy-two thousand, nine hundred and six reais and one cent), according to a consultation of the citizen's calculator on the Central Bank's website (Figure 8).

According to the examination report, the engine shows signs of corrosion and fungal growth. Applying the depreciation index from account 12311.01.14 in item 7.4.18.2 of the Electronic Manual for Budgetary, Financial and Asset Execution (RADA-e) to this value gives the following figure

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Therefore, this appraisal committee considers this value to be compatible with the acquisition value and concludes that the appraisal of the PT6A-34 engine *SN*: PC-E51308 is R\$ 545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents).

Resultado da Correção pelo IGP-M (FGV)



*O cálculo da correção de valores pelo IGP-M foi atualizado e está mais preciso. Saiba mais clicando <u>aqui</u>.

Figure 8: Citizen's calculator

f) Other clarifications deemed necessary:

In view of the uneconomical state of repair of the engine, the item will be used as a *core* in the Exchange procurement process.

2.3) PT6A-34 engine (PN: PT6A-34) S/N: PC-E56261

- a) Indication of the Number of the Examination Term that Examined the Material: As per the examination carried out in item 1 of this report.
- **b) Material Specification:** The turboprop aero engine model PT6A-34 and *S/N* PC-E56261 from the manufacturer *Pratt & Whitney* Canada was received by the FAB on October 10, 1970. The engine has a total of 17018:40 flight hours and 15161 cycles since new.

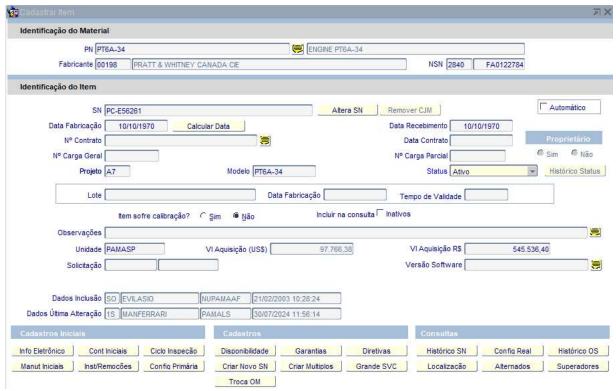


Figure 9: PT6A-34 S/N: PC-E56261. Data extracted from SILOMS screen CTR0114P on 06/12/2024.

- c) Acquisition Value: R\$ 545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents).
- **d)** Current value: R\$ 545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents).
- e) Value assessed by the appointed Evaluation Committee, in accordance with up-to-date prices practiced on the market:

The purchase price of the engine was R\$545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents) in 1970, and since then no monetary correction index has been applied to this value.

The Term of Examination classified the motor as "IN STATE - Awaiting Recovery", as prescribed by item 17.4.1.2 of MCA 67-1/2007 (Supply Manual) and ANTIECONOMIC, according to the breakdown contained in letter "c", of Item 2.14.8.1.1, Electronic Asset Management Manual, Section D, of RADA-e, RCA 12-1, updated on April 16, 2024.

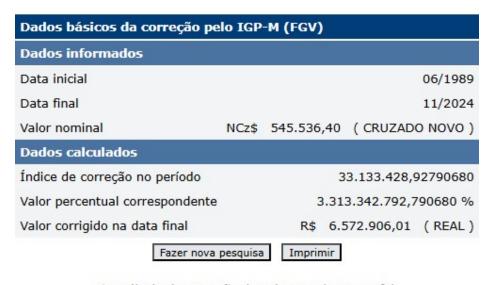
As this is permanent movable property considered uneconomical and classified according to account 12311.01.14 of item 7.4.18.2 of the Electronic Manual for Budgetary, Financial and Asset Execution (RADA-e), the equivalent of a residual value of 10% (ten percent) is obtained, therefore a total of R\$ 54,553.64 (fifty-four thousand, five hundred and fifty-three reais and sixty-four cents).

However, if the General Market Price Index (IGP-M) is applied for monetary correction, the current value will be R\$ 6,572,906.01 (six million, five hundred and seventy-two thousand, nine hundred and six reais and one cent), according to a consultation of the citizen's calculator on the Central Bank's website (Figure 10).

According to the examination report, the engine shows signs of corrosion and fungal growth. Applying the depreciation index from account 12311.01.14 in item 7.4.18.2 of the Electronic Manual for Budgetary, Financial and Asset Execution (RADA-e) to this value gives the following figure

Therefore, this appraisal committee considers this value to be compatible with the acquisition value and concludes that the appraisal of the PT6A-34 S/N PC-E56261 engine is R\$ 545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents).

Resultado da Correção pelo IGP-M (FGV)



*O cálculo da correção de valores pelo IGP-M foi atualizado e está mais preciso. Saiba mais clicando <u>aqui</u>.

Figure 10: Citizen's calculator

f) Other clarifications deemed necessary:

In view of the uneconomical state of repair of the engine, the item will be used as a *core* in the Exchange procurement process.

2.4) PT6A-34 engine (PN: PT6A-34) S/N: PC-E57393

- a) Indication of the Number of the Examination Term that Examined the Material: As per the examination carried out in item 1 of this report.
- **b) Material Specification:** The turboprop aero engine model PT6A-34 and *S/N* PC-E57393 from the manufacturer *Pratt & Whitney* Canada was received by the FAB on January 15, 1990. The engine has a total of 8943:30 flight hours and 8484 cycles since new.

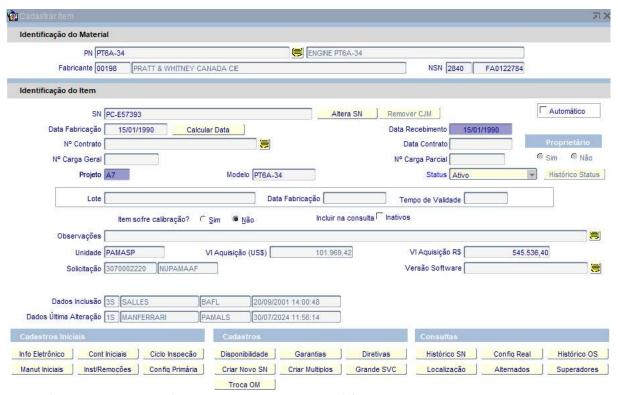


Figure 11: PT6A-34 S/N PC-E57393. Data extracted from SILOMS screen CTR0114P on 06/12/2024

- c) Acquisition Value: R\$ 545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents).
- **d)** Current value: R\$ 545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents).
- e) Value assessed by the appointed Evaluation Committee, in accordance with up-to-date prices practiced on the market:

The purchase price of the engine was R\$ 545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents) in 1990, and since then no monetary correction index has been applied to this value.

The Term of Examination classified the motor as "IN STATE - Awaiting Recovery", as prescribed by item 17.4.1.2 of MCA 67-1/2007 (Supply Manual) and ANTIECONOMIC, according to the breakdown contained in letter "c", of Item 2.14.8.1.1, Electronic Asset Management Manual, Section D, of RADA-e, RCA 12-1, updated on April 16, 2024.

As this is permanent movable property considered uneconomical and classified according to account 12311.01.14 of item 7.4.18.2 of the Electronic Manual for Budgetary, Financial and Asset Execution (RADA-e), the equivalent of a residual value of 10% (ten percent) is obtained, therefore a total of R\$ 54,553.64 (fifty-four thousand, five hundred and fifty-three reais and sixty-four cents).

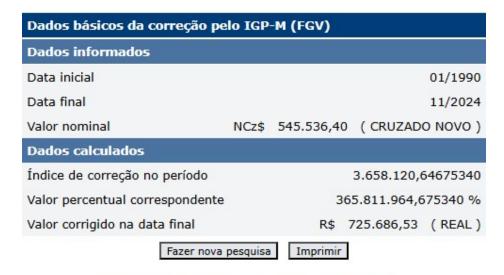
However, if the General Market Price Index (IGP-M) is applied for monetary correction, the current value will be R\$ 725,686.53 (seven hundred and twenty-five thousand, six hundred and eighty-six reais and fifty-three cents), according to a consultation of the citizen's calculator on the Central Bank's website (Figure 12).

According to the examination report, the engine shows signs of corrosion and fungal growth. Applying the depreciation index from account 12311.01.14 in item 7.4.18.2 of the Electronic Manual for Budgetary, Financial and Asset Execution (RADA-e) to this value gives the following figure

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(seventy-two thousand five hundred and sixty-eight reais and sixty-five cents). Therefore, this appraisal committee considers this value to be compatible with the acquisition value and concludes that the appraisal of the PT6A-34 *S/N* PC-E57393 engine is R\$ 545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents).

Resultado da Correção pelo IGP-M (FGV)



*O cálculo da correção de valores pelo IGP-M foi atualizado e está mais preciso. Saiba mais clicando <u>aqui</u>. Figure 12: Citizen's calculator

f) Other clarifications deemed necessary:

In view of the uneconomical state of repair of the engine, the item will be used as a *core* in the Exchange procurement process.

2.5) PT6A-34 engine (PN: PT6A-34) S/N: PC-E57101

- a) Indication of the Number of the Examination Term that Examined the Material: As per the examination carried out in item 1 of this report.
- **b) Material Specification:** The turboprop aero engine model PT6A-34 and S/N PC-E57101 from the manufacturer *Pratt & Whitney* Canada was received by the FAB on August 23, 1983. The engine has a total of 14175:40 flight hours and 14067 cycles since new

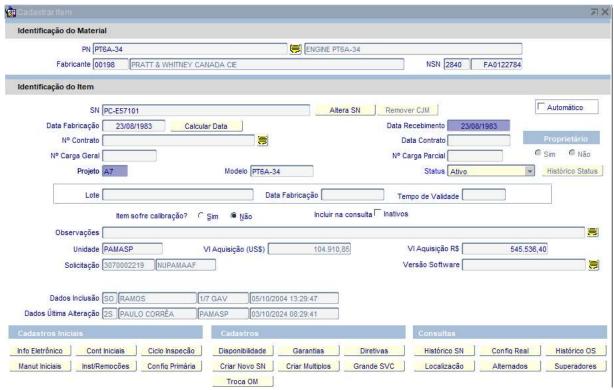


Figure 13: PT6A-34 S/N PC-E57101. Data taken from SILOMS screen CTR0114P on 06/12/2024

- c) Acquisition Value: R\$ 545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents).
- **d)** Current value: R\$ 545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents).

The purchase price of the engine was R\$ 545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents) in 1983, and since then no monetary correction index has been applied to this value.

The Term of Examination classified the motor as "IN STATE - Awaiting Recovery", as prescribed by item 17.4.1.2 of MCA 67-1/2007 (Supply Manual) and ANTIECONOMIC, according to the breakdown contained in letter "c", of Item 2.14.8.1.1, Electronic Asset Management Manual, Section D, of RADA-e, RCA 12-1, updated on April 16, 2024.

As this is permanent movable property considered uneconomical and classified according to account 12311.01.14 of item 7.4.18.2 of the Electronic Manual for Budgetary, Financial and Asset Execution (RADA-e), the equivalent of a residual value of 10% (ten percent) is obtained, therefore a total of R\$ 54,553.64 (fifty-four thousand, five hundred and fifty-three reais and sixty-four cents).

However, if the General Market Price Index (IGP-M) is applied for monetary correction, the current value will be R\$6,572,906.01 (six million, five hundred and seventy-two thousand, nine hundred and six reais and one cent), according to a consultation of the citizen's calculator on the Central Bank's website (Figure 14).

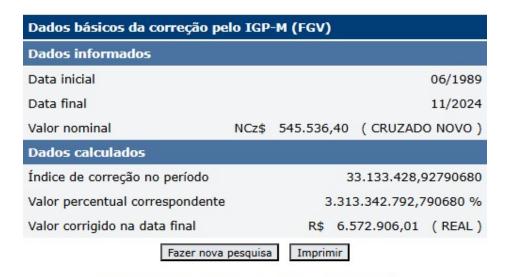
According to the examination report, the engine shows signs of corrosion and fungal growth. Applying the depreciation index from account 12311.01.14 in item 7.4.18.2 of the Electronic Manual for Budgetary, Financial and Asset Execution (RADA-e) to that value gives a residual value of R\$657,290.60 (six hundred and fifty-seven thousand two hundred and ninety reais and sixty dollars).

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cents).

Therefore, this appraisal committee considers this value to be compatible with the acquisition value and concludes that the appraisal of the PT6A-34 S/N PC-E57101 engine is R\$ 545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents).

Resultado da Correção pelo IGP-M (FGV)



*O cálculo da correção de valores pelo IGP-M foi atualizado e está mais preciso. Saiba mais clicando aqui.

Figure 14: Citizen's calculator

f) Other clarifications deemed necessary:

In view of the uneconomical state of repair of the engine, the item will be used as a *core* in the Exchange procurement process.

2.6) PT6A-34 engine (PN: PT6A-34) S/N: PC-E57336

- a) Indication of the Number of the Examination Term that Examined the Material: As per the examination carried out in item 1 of this report.
- **b) Material Specification:** The turboprop aero engine model PT6A-34 and *S/N* PC-E57336 from the manufacturer *Pratt & Whitney* Canada was received by the FAB on December 28, 1988. The engine has a total of 8424:40 flight hours and 6462 cycles since new

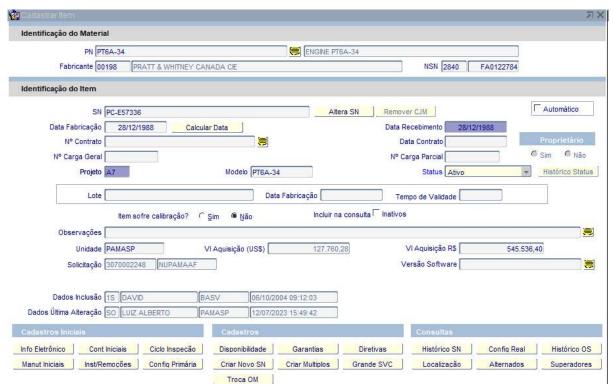


Figure 15: PT6A-34 S/N PC-E57336. Data taken from SILOMS screen CTR0114P on 06/12/2024

- c) Acquisition Value: R\$ 545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents).
- **d)** Current value: R\$ 545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents).

The purchase price of the engine was R\$ 545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents) in 1988, and since then no monetary correction index has been applied to this value.

The Term of Examination classified the motor as "IN STATE - Awaiting Recovery", as prescribed by item 17.4.1.2 of MCA 67-1/2007 (Supply Manual) and ANTIECONOMIC, according to the breakdown contained in letter "c", of Item 2.14.8.1.1, Electronic Asset Management Manual, Section D, of RADA-e, RCA 12-1, updated on April 16, 2024.

As this is permanent movable property considered uneconomical and classified according to account 12311.01.14 of item 7.4.18.2 of the Electronic Manual for Budgetary, Financial and Asset Execution (RADA-e), the equivalent of a residual value of 10% (ten percent) is obtained, therefore a total of R\$ 54,553.64 (fifty-four thousand, five hundred and fifty-three reais and sixty-four cents).

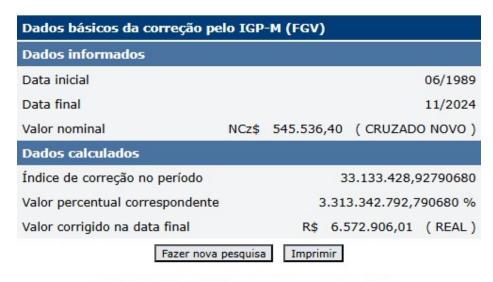
However, if the General Market Price Index (IGP-M) is applied for monetary correction, the current value will be R\$ 6,572,906.01 (six million, five hundred and seventy-two thousand, nine hundred and six reais and one cent), according to a consultation of the citizen's calculator on the Central Bank's website (Figure 16).

According to the examination report, the engine shows signs of corrosion and fungal growth. Applying the depreciation index from account 12311.01.14 in item 7.4.18.2 of the Electronic Manual for Budgetary, Financial and Asset Execution (RADA-e) to this value gives the following figure

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Therefore, this appraisal committee considers this value to be compatible with the acquisition value and concludes that the appraisal of the PT6A-34 S/N PC-E57336 engine is R\$ 545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents).

Resultado da Correção pelo IGP-M (FGV)



*O cálculo da correção de valores pelo IGP-M foi atualizado e está mais preciso. Saiba mais clicando <u>aqui</u>.

Figure 16: Citizen's calculator

f) Other clarifications deemed necessary:

In view of the uneconomical state of repair of the engine, the item will be used as a *core* in the Exchange procurement process.

2.7) PT6A-34 engine (PN: PT6A-34) S/N: PC-E57334

- a) Indication of the Number of the Examination Term that Examined the Material: As per the examination carried out in item 1 of this report.
- **b) Material Specification:** The turboprop aero engine model PT6A-34 and *S/N* PC-E57334 from the manufacturer *Pratt & Whitney* Canada was received by the FAB on December 5, 1988. The engine has a total of 10974:40 flight hours and 8845 cycles since new

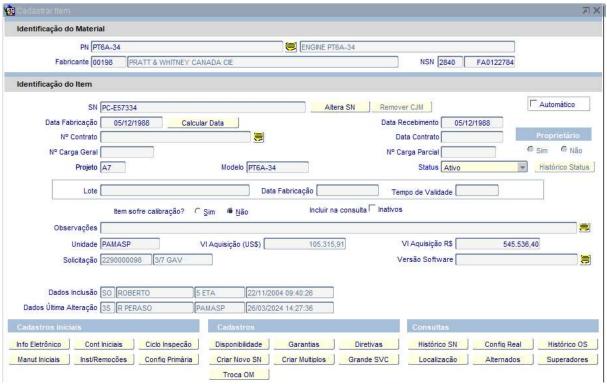


Figure 17: PT6A-34 S/N PC-E57334. Data taken from SILOMS screen CTR0114P on 06/12/2024.

- c) Acquisition Value: R\$ 545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents).
- **d)** Current value: R\$ 545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents).

The purchase price of the engine was R\$545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents) in 1988, and no monetary correction index has been applied to this value since that date.

The Term of Examination classified the motor as "IN STATE - Awaiting Recovery", as prescribed by item 17.4.1.2 of MCA 67-1/2007 (Supply Manual) and ANTIECONOMIC, according to the breakdown contained in letter "c", of Item 2.14.8.1.1, Electronic Asset Management Manual, Section D, of RADA-e, RCA 12-1, updated on April 16, 2024.

As this is permanent movable property considered uneconomical and classified according to account 12311.01.14 of item 7.4.18.2 of the Electronic Manual for Budgetary, Financial and Asset Execution (RADA-e), the equivalent of a residual value of 10% (ten percent) is obtained, therefore a total of R\$ 54,553.64 (fifty-four thousand, five hundred and fifty-three reais and sixty-four cents).

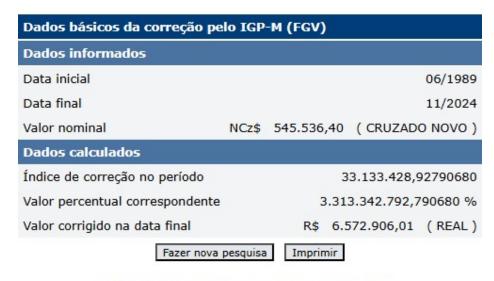
However, if the General Market Price Index (IGP-M) is applied for monetary correction, the current value will be R\$6,572,906.01 (six million, five hundred and seventy-two thousand, nine hundred and six reais and one cent), according to a consultation of the citizen's calculator on the Central Bank's website (Figure 18).

According to the examination report, the engine shows signs of corrosion and fungal growth. Applying the depreciation index from account 12311.01.14 in item 7.4.18.2 of the Electronic Manual for Budgetary, Financial and Asset Execution (RADA-e) to this value gives the following figure

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Therefore, this appraisal committee considers this value to be compatible with the acquisition value and concludes that the appraisal of the PT6A-34 S/N PC-E57334 engine is R\$ 545,536.40 (five hundred and forty-five thousand, five hundred and thirty-six reais and forty cents).

Resultado da Correção pelo IGP-M (FGV)



*O cálculo da correção de valores pelo IGP-M foi atualizado e está mais preciso. Saiba mais clicando <u>aqui</u>.

Figure 18: Citizen's calculator

f) Other clarifications deemed necessary:

In view of the uneconomical state of repair of the engine, the item will be used as a *core* in the Exchange procurement process.

São Paulo, December 9, 2024.

Prepared by:	
	Eder Luiz Da Silva - 1st Lt. QOCon MEC Engine Engineer PT6A
Reviewed by:	
	Carlos César Minoru Imaniche - Lt. Col. Eng. Head of the Engine Subdivision
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Head of Technical Division



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This document has been electronically signed and verified in accordance with article 6 of Decree No. 8.539 of 08/10/2015 of the Presidency of the Republic by the signatories below:

Signed via CADASTRAL SIGNATURE by 1st Lt EDER LUIZ DA SILVA on 09/12/2024 at 14:13: 25 Brasília time.

Signed via CADASTRAL SIGNATURE by Lt Col Eng CARLOS CÉSAR MINORU IMANICHE on 09/12/2024 at 14:15:12 official Brasília time.

Signed via CADASTRAL SIGNATURE by Col. CLAUDOMIRO FELTRAN JUNIOR on 09/12/2024 at 21:18:48 official Brasília time.



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Este documento foi assinado e conferido eletronicamente com fundamento no artigo 6º, do Decreto nº 8.539 de 08/10/2015 da Presidência da República pelos assinantes abaixo:

Assinado via ASSINATURA CADASTRAL por Cap MARCOS CAMARGO DE CAMACHO no dia 11/12/2024 às 11:08:56 no horário oficial de Brasília.

Assinado via ASSINATURA CADASTRAL por Primeiro Sargento HUMBERTO ALVES MONTEIRO JUNIOR no dia 11/12/2024 às 11:10:36 no horário oficial de Brasília.

Assinado via ASSINATURA CADASTRAL por Cel CARLOS AUGUSTO JUNIOR no dia 11/12/2024 às 11: 29:56 no horário oficial de Brasília.

Assinado via ASSINATURA CADASTRAL por Cel MARCELO RODRIGUES DOS REIS PONTES no dia 11/12/2024 às 11:48:27 no horário oficial de Brasília.

