



## CHAPTER 55

### PRORATED TIME AUTHORIZATIONS

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## 1.0 OBJECTIVE

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**This section provides guidance in determining the prorated time for an item.  
Reference: ICAO Document 9389 - AN/919, Chapter 7 and Attachment 7-A.**

## 2.0 GENERAL

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- A. Proration is a procedure to determine the time consumed under one maintenance system and to establish the remaining time under a new system.
- B. Operators often sell or lease their equipment to other operators. This “used” equipment will have accumulated a certain amount of time in service. This time is transferred to the new operator and may be phased in or prorated to the new operator’s approved time limitations.
- C. When an operator’s approved time limitations are not the same as those of the previous operator(s), the buyer has two options: direct inclusion or proration.
  - (1) When the operator chooses direct inclusion, the difference between the operator’s approved time limit and the previous operator’s actual time will determine the time limitation.
  - (2) When the previous operator’s approved time limitations are different from that of the current operator; proration may be used to adjust the time limitations.
- D. Scope and Limitations.
  - (1) Proration in no way lessens an operator’s responsibility to maintain the aircraft in an airworthy condition.
  - (2) Proration is optional.
  - (3) Life limited components may not be prorated
  - (4) Proration may not be applied to times specified in
  - (5) Airworthiness Directives.



- (6) Operators who have been operating large aircraft under the CARs
  - (7) Both adjusted and actual times must be shown on the proration document and the aircraft records.
  - (8) When an item is inspected or overhauled as appropriate, the applicable prorated time limits will be cancelled. Thereafter, the item will be handled according to the operator's approved programme.
  - (9) Partial proration is not acceptable. An operator electing proration must prorate the airframe and all of its installed powerplants, propellers, and appliances. Spare engines and propellers acquired at the time of sale or at a later date with "time in service" may be prorated.
  - (10) If an increase in a time limitation is approved for a certificate holder operating on prorated times, that increase will be credited to the prorated item(s).
  - (11) Amendments to certificate holder's operations specifications that increase time limits are applicable to all aircraft of the same type and model operated by an operator. Such time increases apply to aircraft operating on a prorated time basis, as well as to the other aircraft in the fleet.
- E. Foreign Air Operator's Aircraft. Foreign air operator's aircraft for which there is a type certificate may be phased into an air operator's programme via proration. However, the operator must first present satisfactory evidence that the programme under which the aircraft was maintained is at least equivalent to the new operator's programme for a similar type of aircraft.

### 3.0 DATA AND COMMUNICATION

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- A. Prorated time remaining can be determined by using the following mathematical procedures.
- (1) Divide the actual time used by the previous operator's approved time limit under which the aircraft has been operated. The result, carried to three places of decimal, will represent the percentage of approved time already used.
  - (2) Multiply the new operator's time limit by the percentage of time used. This will result in the prorated time to be used under the new programme.
  - (3) Subtract the prorated time from the time limit approved in the new programme. The result will represent the number of hours remaining under the new programme. (See Figure 14-1)



B. Block/Pattern time Limitation

- (1) When block/pattern time is to be prorated each block/pattern shall be treated as though a complete aircraft were being prorated.
- (2) When the previous operator used a block/pattern system, a document must be submitted showing the following:
  - Time limitation for each block or pattern, together with a list of items that are part of the block or pattern.
  - Time since accomplishment for each individual item on the aircraft.

#### 4.0 PROCEDURES

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A. Coordination. This task requires coordination between the inspector and the operator.

B. References

- US-FAA Advisory Circular 120-17, Maintenance Control by Reliability Methods as amended.
- US-FAA Advisory Circular 121-1, Standard Operations Specifications, as amended.
- Operator's documentation, including operations specifications, for previous and new operator
- ICAO Document 9389, Chapter 7, Page 7-A-3.

C. Receive Data from Applicant. The operator must submit required information to the NCAA.

- (1) The operator must submit all operations specifications containing the time limits utilized for the particular aircraft by the previous operator.
  - (a) If the operations specifications do not show hours, the operator must submit other documentation that will establish the time limits.



- (b) If conversion to hours is necessary, the computations used for the conversion should be included.
  - (2) The operator must provide operations specifications pertinent to the particular aircraft.
  - (3) The operator must submit documents itemizing the following:
    - Engines, propellers, and appliances that have different time limitations than the previous operator and are to be prorated. These will be listed by Air Transportation Association chapter numbering system, showing the name, part number, serial number, and position.
    - The approved time under which the aircraft has been operated
    - The actual time since last accomplishment
    - Percent of time used by previous operator
    - The approved time limitation for the new operator
  - (4) When the previous operator used a block/pattern system, a document must be submitted showing the following:
    - Time limitation for each block or pattern, together with a list of items that are part of the block or pattern.
    - Time since accomplishment for each individual item on the aircraft
- D. Determine That the Aircraft and/or Components Are Eligible for Proration
- E. Check the Prorated Time Computation. Times obtained via proration may be rounded to the nearest 10-hour figure. (See Figure 14-1)

## 5.0 TASK OUTCOMES

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- A. Approve Operations Specifications
- B. Document Task. File all supporting paperwork in the operator's office file.

## 6.0 FUTURE ACTIVITIES

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Normal surveillance.



**FIGURE 14-1**

**PRORATION FORMULA EXAMPLE**

The example below demonstrates the simple steps involved in determining a buyer's time remaining to overhaul.

Known

Previous operator's approved overhaul time limit = 8,000 hours

Previous operator's time since overhaul (TSO) = 2,000 hours

Buyer's approved overhaul time limit = 12,000 hours

Step One

Divide the previous operator's TSO figure by the previous operator's approved overhaul time limit. Carry this out to three decimal places. The result represents the percentage of approved overhaul time already used.

$2000/8000 = .250$                       In this example, 25 percent is the result

.Step Two

Multiply the buyer's approved overhaul time limit figure by the decimal arrived at in Step One. The result is the prorated TSO to be used by the buyer.

$$\begin{array}{r} 12,000 \\ \times .250 \\ \hline 3,000 \end{array}$$

In this example, 3000 is the prorated TSO to be used by the buyer.

Step Three

Subtract the prorated TSO arrived at in Step Two from the buyer's approved overhaul time limit. The resulting figure will be the number of hours remaining to overhaul for the buyer.

$$\begin{array}{r} 12,000 \\ -3,000 \\ \hline 9,000 \end{array}$$

In this example, the buyer's prorated time remaining to overhaul is 9000 hours.