

FORGE

THE 4 YEARS PATHWAY TO LICENSE

A full programme to develop the future technical staff of your Organisation

FORGE - The Pathway to License is AEA's integrated programme designed for Part-145 organisations that want to invest today in the development of their future licensed maintenance workforce.

Invest today in your future workforce.

The aviation maintenance industry needs skilled personnel, but developing a young technician into a licensed aircraft maintenance professional requires much more than an initial training course.

It requires a structured pathway combining technical training, practical training, workplace experience, Part-66 knowledge and continued professional development.

The programme starts with an initial technical and practical training phase at AEA, continues with supervised professional experience within the Part-145 organisation for completion of the candidate's personal record (MERL), and supports the candidate through the following years of preparation for the Part-66 module examinations.

The objective is to develop a young candidate into a maintenance professional who can progressively meet the applicable requirements for an Aircraft Maintenance Licence (AML/LMA), all within less than 4 years.

THEORETICAL TRAINING

200+ HOURS

The FORGE programme begins with 206 hours of theoretical training.

This allows candidates to acquire a solid technical foundation before entering the operational maintenance environment.

The theoretical programme includes preparation and sitting of the following Part-66 modules:

- **M7 – Maintenance Practices**
- **M9 – Human Factors**
- **M10 – Aviation Legislation**

The objective is not simply to prepare candidates for an examination. It is to provide the technical, regulatory and safety knowledge required to enter an aircraft maintenance organisation with an appropriate level of preparation.

PRACTICAL TRAINING

530+ HOURS

Aircraft maintenance is a practical profession.

For this reason, FORGE includes 532 hours of practical training.

The practical component allows candidates to develop familiarity and competence with:

- maintenance tools and equipment.
- aircraft maintenance practices.
- technical documentation.
- maintenance procedures.
- basic inspection techniques and troubleshooting activities.
- safety working practices.
- the working environment of an aircraft maintenance organisation.

As a result, candidates enter the Part-145 environment with theoretical knowledge and a solid foundation of practical maintenance skills.

THE FORGE PROGRAMME IN 22 WEEKS

FORGE TRAINING STRUCTURE

TRAINING AREA	CONTENT	HOURS
Part-66 M9 – Human Factors	Safety Training including Human Factors, hangar safety, technical communication and reporting	16 h
Part-66 M7 – Maintenance Practices	Maintenance practices, documentation, materials, mechanical and electrical aspects, structures, aircraft systems, inspection and troubleshooting	166 h
Part-66 M10 - Aviation Legislation	EASA / EU / national regulatory framework, continuing airworthiness, Part-M / Part-ML / Part-145 and related requirements	24 h
Practical Maintenance Training	Practical maintenance activities, aircraft familiarisation, mechanical and electrical aspects, structures, avionics, inspection, servicing and troubleshooting	532 h
Final Assessment	Theoretical examination and practical competency assessment	
Total Programme		738 hours = 22 WEEKS

SKILLED WORKER STATUS

ENAC RECOGNITION

FORGE is a training pathway recognised under Part-66, 66.A.30. Candidates who complete training recognised by the competent authority as a “skilled worker in a technical trade” may benefit from a reduction in the basic practical maintenance experience required for an Aircraft Maintenance Licence (AML).

Once training is recognised as FORGE, the supervised and appropriately recorded practical maintenance experience requirement is reduced to three years.

Why this matters to a Part-145 organisation

FORGE provides Part-145 organisations with a structured way to develop promising young technicians and build the foundations of their future licensing pathway.

After the initial FORGE phase, the candidate can enter the Part-145 environment and begin gaining the practical maintenance experience required for the LMA application.

THE SKILLED WORKER REDUCTION IS LINKED TO ENAC RECOGNITION

This is a fundamental element of the FORGE programme.

The Skilled Worker reduction is not an automatic European qualification granted to the candidate simply because they have attended a technical course.

Under Part-66, the relevant training must be recognised by the competent authority as suitable Skilled Worker training. ENAC expressly provides for the recognition of courses considered relevant for this purpose.

For candidates following the FORGE pathway and intending to benefit from the Skilled Worker experience reduction associated with the recognised pathway, the LMA application must therefore be submitted to ENAC, as the competent authority responsible for recognising the relevant training.

This means that FORGE is specifically designed within an Italian regulatory framework.

The benefit of the Skilled Worker pathway is linked to the training pathway recognised by ENAC and to the subsequent application for licence issuance submitted to the Italian authority.

The final issuance of the LMA remains subject to ENAC verifying that the individual candidate has satisfied all applicable Part-66 requirements.

FORGE CONTINUES FOR THREE YEARS

FROM TRAINING TO PROFESSIONAL EXPERIENCE

After successfully completing the initial FORGE programme, the candidate enters the operational environment of the sponsoring Part-145 organisation.

This is where the candidate begins to gain the practical experience required by Part-66.

Over the following three years, the candidate develops and records practical maintenance experience on operational aircraft, in accordance with the applicable Part-66 requirements and the organisation's procedures.

LEARNING DOES NOT STOP WHEN THE CANDIDATE ENTERS PART-145

One of the main differences between FORGE and a conventional initial training course is continuity.

After the initial training phase, the candidate continues the FORGE pathway within the sponsoring Part-145 organisation throughout the three-year OJT period.

The programme is built around the needs of the organisation and the individual candidate, with a dedicated training and examination schedule agreed between AEA, the Part-145 organisation and the candidate.

Throughout the three years, the candidate receives:

- Continuous access to the training available on the AEA digital platform.
- Theory handouts and supporting training materials.
- Preparatory seminars for the examinations.
- Dedicated examination sessions for the remaining Part-66 modules, progressively scheduled throughout the three-year OJT period according to an agreed calendar.

The candidate can progressively prepare for the remaining Part-66 modules:

- **M1 – Mathematics**
- **M2 – Physics**
- **M3 – Electrical Fundamentals**
- **M4 – Electronic Fundamentals**
- **M5 – Digital Techniques / Electronic Instrument Systems**
- **M6 – Materials and Hardware**
- **M8 – Basic Aerodynamics**
- **M11 – Turbine Aeroplane Aerodynamics, Structures and Systems**
- **M15 – Gas Turbine Engine**
- **M17 – Propulsion**

This approach ensures that training, OJT and Part-66 examinations are planned together, following a schedule agreed with the Part-145 organisation and tailored to the individual candidate.

A CUSTOMISABLE PROGRAMME

TRAINING BUILT AROUND YOUR ORGANISATION

FORGE can also be tailored to the requirements of the Part-145 organisation sponsoring the candidate.

In particular, if your Part-145 organisation has suitable facilities for the initial theoretical training, the entire programme can be delivered at your *home base*.

This on-site delivery model allows the organisation to reduce additional costs associated with the candidate's accommodation and travel, while allowing the candidate to undertake training in the same environment in which they will subsequently gain their professional experience.

It also creates a closer connection between training and operational practice, allowing the programme to be better aligned with the organisation's specific environment, procedures and future workforce requirements.

In addition, the M9 – Human Factors module can, where applicable, be tailored to incorporate the organisation's requirements for Safety Training including Human Factors as part of the initial mandatory training for technical personnel.

Finally, through our network of strategic partnerships, we can provide highly specialised and certified Occupational Health and Safety training, in accordance with Italian legislation (Legislative Decree 81/2008).

This allows the Part-145 organisation to align the candidate's initial training with its operational and regulatory training requirements, while maintaining the overall objective of the FORGE pathway.

WHAT THE PART-145 ORGANISATION GAINS

DEVELOP YOUR FUTURE MAINTENANCE PROFESSIONALS

FORGE is designed as a *workforce development* solution for Part-145 organisations.

Instead of looking for a certified and already fully qualified technician in an increasingly competitive labour market, the organisation can identify promising young candidates and develop them through a structured pathway.

YOUR ORGANISATION PROVIDES

THE EXPERIENCE

A real professional environment in which the candidate can gain practical maintenance experience.

THE OPPORTUNITY

The opportunity to work within the organisation and progressively build the experience required by Part-66.

THE MENTORING

The operational environment, supervision and professional culture required to develop a competent maintenance professional.

AEA PROVIDES

THE TECHNICAL FOUNDATION

Dedicated initial theoretical and practical training.

THE PART-66 PREPARATION

Progressive preparation for the required examinations.

THE DIGITAL LEARNING ENVIRONMENT

Continuous access to training resources throughout the development pathway.

THE CONTINUITY

Support that continues after the candidate enters the Part-145 environment.

AN INVESTMENT IN PEOPLE

BUILD YOUR FUTURE WORKFORCE BEFORE YOU NEED IT

The strongest maintenance organisations do not simply recruit qualified people.

They develop them.

FORGE gives Part-145 organisations the opportunity to develop their future maintenance workforce internally.

Over time, the organisation can develop an entry-level candidate into a professional who understands:

- aircraft maintenance.
- regulatory requirements.
- maintenance procedures.
- safety principles and Human Factors.
- the organisation's own operational environment.
- the responsibilities of a licensed aircraft maintenance professional.

The organisation therefore becomes an active contributor to the development of its future licensed maintenance workforce.

Phase 1 – Initial Training at AEA 738 hours · 22 weeks

Theoretical training – 206 h

- M9 - Human Factors (16 h)
- M7 – Maintenance Practices (166 h)
- M10 – Aviation Legislation (24 h)

Practical training – 532 h

Tools and equipment, technical documentation, procedures, inspection, troubleshooting, servicing, safe working practices.

Final Assessment

Theoretical examination and assessment of practical skills.



Skilled Worker reduction (Part-66, 66.A.30)

Required practical experience reduced from 5 to 3 years, subject to ENAC recognition of the training



Phase 2 – Entry into Part-145 and OJT 3 years

Hands-on experience (provided by the organisation)

Maintenance on in-service aircraft, with supervision and mentoring. Experience is recorded in accordance with Part-66 and the organisation's procedures.

FORGE continues (provided by AEA)

- Digital learning platform
- Theory handouts and supporting materials
- Preparatory seminars
- Dedicated examination sessions
- Personalised progression plan

Part-66 modules to be completed over the three years

M1 Mathematics · M2 Physics · M3 Electrical Fundamentals · M4 Electronic Fundamentals · M5 Digital Techniques / EIS · M6 Materials and Hardware · M8 Basic Aerodynamics · M11 Turbine Aeroplane Aerodynamics, Structures and Systems · M15 Gas Turbine Engine · M17 Propulsion



AML application to ENAC

B1.1, B1.3 or B2 licence. Issue remains subject to ENAC verification that all applicable Part-66 requirements are met.

THE PATHWAY TO LICENSE

AEA – Aircraft Engineering Academy

Part-147 approved training organisation