

INSPECTION REPORT

QinetiQ Limited MOD Boscombe Down

29 January 2004



ADULT LEARNING
INSPECTORATE

Grading

Inspectors use a seven-point scale to summarise their judgements about the quality of learning sessions. The descriptors for the seven grades are:

- *grade 1 - excellent*
- *grade 2 - very good*
- *grade 3 - good*
- *grade 4 - satisfactory*
- *grade 5 - unsatisfactory*
- *grade 6 - poor*
- *grade 7 - very poor.*

Inspectors use a five-point scale to summarise their judgements about the quality of provision in occupational/curriculum areas and Jobcentre Plus programmes. The same scale is used to describe the quality of leadership and management, which includes quality assurance and equality of opportunity. The descriptors for the five grades are:

- *grade 1 - outstanding*
- *grade 2 - good*
- *grade 3 - satisfactory*
- *grade 4 - unsatisfactory*
- *grade 5 - very weak.*

The two grading scales relate to each other as follows:

SEVEN-POINT SCALE	FIVE-POINT SCALE
grade 1	grade 1
grade 2	
grade 3	grade 2
grade 4	grade 3
grade 5	grade 4
grade 6	grade 5
grade 7	

Adult Learning Inspectorate

The Adult Learning Inspectorate (ALI) was established under the provisions of the *Learning and Skills Act 2000* to bring the inspection of all aspects of adult learning and work-based learning within the remit of a single inspectorate. The ALI is responsible for inspecting a wide range of government-funded learning, including:

- work-based learning for all people over 16
- provision in further education colleges for people aged 19 and over
- **learndirect** provision
- Adult and Community Learning
- training funded by Jobcentre Plus
- education and training in prisons, at the invitation of Her Majesty's Chief Inspector of Prisons.

Inspections are carried out in accordance with the *Common Inspection Framework* by teams of full-time inspectors and part-time associate inspectors who have knowledge of, and experience in, the work which they inspect. All providers are invited to nominate a senior member of their staff to participate in the inspection as a team member.

Overall judgement

Where the overall judgement is that the provision is adequate, only those aspects of the provision which are less than satisfactory will be reinspected.

Provision will normally be deemed to be inadequate where:

- more than one third of published grades for occupational/curriculum areas, **or**
- leadership and management are judged to be less than satisfactory.

This provision will be subject to a full reinspection.

The final decision as to whether the provision is inadequate rests with the Chief Inspector of Adult Learning. A statement as to whether the provision is adequate or not is included in the summary section of the inspection report.

INSPECTION REPORT

QinetiQ Limited MOD Boscombe Down

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INSPECTION REPORT

DESCRIPTION OF THE PROVIDER

1. QinetiQ Limited (QinetiQ), formerly known as the Defence Evaluation and Research Agency (DERA) is a private company owned by the Ministry of Defence (MoD). DERA moved from the public sector to become an MoD-owned private company in July 2000. QinetiQ is divided into sectors which carry out research and development for the MoD in land, sea and air capabilities at 22 sites throughout the UK. In 2003 the MoD entered into a long-term partnering agreement with QinetiQ for the provision of test and evaluation facilities over a period of 25 years.

2. The primary activity at QinetiQ Boscombe Down, near Amesbury, Wiltshire is to support the MoD by performing impartial flight trials of new aircraft, airborne equipment and weapons to assess safety and suitability. Trials are carried out during research, development and production phases as well as during operational service. Approximately 2,000 members of staff are based at Boscombe Down. The engineering training school (ETS) is managed within the technical division of the aircraft test and evaluation sector, and provides work-based learning programmes for employees, in the form of modern apprenticeships. Programmes are funded by Wiltshire and Swindon Learning and Skills Council.

3. Operational control of the ETS is the responsibility of the training manager, who reports to a capability group leader for resource issues and a technical director for engineering issues. The training manager has a team of three senior instructors and seven trade instructors. The ETS is located on-site and has modern, well-equipped classrooms and training workshops.

SCOPE OF PROVISION

Engineering, technology & manufacturing

4. QinetiQ has 25 learners at ETS Boscombe Down on engineering advanced modern apprenticeships, all of whom are employed by the company. All learners follow programmes in one of the three main aircraft engineering trade disciplines. Eleven learners are on airframe/engine (mechanical) programmes, 11 are training in avionics (aircraft electronics) and three are following armament (aircraft stores and survival equipment) programmes. QinetiQ is currently running two programmes, having recently revised its scheme. The first of these programmes has a duration of three years, the first 18 months of which are spent in off-the-job training in the ETS and the remainder in on-the-job training. This programme has recently been superseded by a four-year modular programme which new learners join. During the first three years of the four-year programme, learners spend alternate four-month periods in on- and off-the-job training. The fourth year comprises on-the-job competency development and skill enhancement to enable learners to complete the national vocational qualification (NVQ) part of the modern apprenticeship framework. In addition, all learners are encouraged and

supported to attend the local college of further education on day release for additional qualifications at national or higher national certificate level which are above the framework requirements.

ABOUT THE INSPECTION

Number of inspectors	4
Number of inspection days	16
Number of learner interviews	21
Number of staff interviews	17
Number of employer interviews	11
Number of subcontractor interviews	8
Number of locations/sites/learning centres visited	14

OVERALL JUDGEMENT

5. The quality of the provision is adequate to meet the needs of those receiving it. More specifically, the quality of work-based learning in engineering is good. QinetiQ's leadership and management and its approach to equality of opportunity are satisfactory but its arrangements for quality assurance are unsatisfactory.

GRADES

grade 1= outstanding, grade 2 = good, grade 3 = satisfactory, grade 4 = unsatisfactory, grade 5 = very weak

Leadership and management	3
Contributory grades:	
Equality of opportunity	3
Quality assurance	4

Engineering, technology & manufacturing	2
Contributory grades:	
Work-based learning for young people	2

KEY FINDINGS

Achievement and standards

6. **Retention and completion rates are very good.** Eighty-one per cent of learners starting programmes in the past three years are still in learning. Eighty-nine per cent of all learners who started programmes between 1999-2000 and 2000-01 have been retained, and all of these learners have successfully completed their framework.

7. The key skills qualification achievement rate is good. All learners achieve a key skills

qualification at the level required for the framework. Thirty per cent of the current intake of learners have already achieved or are working towards key skills qualifications at a level more advanced than that required in their frameworks.

8. Learners successfully acquire good levels of practical skills in aircraft maintenance. They are able to work alongside more experienced technicians and fitters on modern aircraft systems and equipment early in their programmes.

Quality of education and training

9. **On- and off-the-job training are good.** Experienced and well-qualified staff deliver background knowledge and skills training. Learning is planned well. Good use is made of innovative and effective learning aids. Trainers use a variety of well-prepared teaching aids.

10. **QinetiQ's learning and development resources are excellent.** The basic aircraft engineering skills training area is spacious and equipped very well with a selection of fixed-wing and rotary-wing aircraft, as well as a wide range of aircraft components.

11. Learners get the opportunity to work on aircraft that have been significantly modified, with technologically advanced systems and installed equipment under trial. Learners are also introduced to the practical aspects of many other high-technology research and development-level projects during their work in the squadrons and experimental laboratories.

12. **QinetiQ's programmes of learning are very effective.** The structure and delivery systems of learning programmes are closely aligned to the varying business needs of the diverse squadrons within the establishment. Of learners completing training over the past five years, all except one have progressed to full employment with QinetiQ. The additional training offered to all learners includes components at junior and middle management level such as project management and business management for technicians.

13. **QinetiQ sets good standards for health and safety in all of its operations, particularly in aircraft servicing and maintenance.** It strongly emphasises good standards of workplace health and safety, starting during induction. The correct use of personal protective equipment is emphasised throughout the training programme.

14. QinetiQ's arrangements for key skills delivery and assessment are good. QinetiQ makes good use of accreditation of prior learning. Learners complete a series of projects and assignments which have been matched to the key skill units. Key skills training and assessment are integrated with the learning programme, and the qualification is completed during the first 18 months of learning.

15. **Learners are not involved enough in the progress review process.** Learners do not receive individual reviews. They receive monthly reports which outline classroom and

practical achievement and are distributed in class sessions. Some learners have not felt confident enough to challenge or question review comments in the presence of their peers. Targets and goals for achievement are not discussed in the review, nor are pastoral care issues. The review forms do not include recommendations for improvement. There is no evidence of co-ordination of reviews conducted in the different training or work locations.

16. QinetiQ's arrangements for initial assessment are not sufficiently developed. The results of selection and aptitude tests are not used when drafting individual learning plans or to identify individual learning needs. The company places great reliance on candidates achieving good general certificate of secondary education (GCSE) grades as a selection criterion because of the demands of the advanced modern apprenticeship framework and the requirement for learners to develop good technical skills. No current arrangements are in place to measure literacy or numeracy skills competence, and these skills are not specifically assessed following selection.

Leadership and management

17. QinetiQ successfully matches training to the business needs of the company.

Middle managers are clear in what they require from the programme and work together to ensure that the number of learners and the standard of training meet the company's needs. Senior managers are strongly committed to training, although no clear strategy for the apprenticeship programme exists. Some training staff in the ETS are unsure of the long-term strategy for training and do not fully understand where the ETS fits into the overall company. Good links are maintained with the on-site managers to ensure that the training meets requirements in the squadrons. QinetiQ has extended the apprenticeship programme to four years following a training needs review, to enable the learners to become more fully trained before entering employment on the base.

18. QinetiQ uses management information well to support its business planning.

Challenging targets for retention and achievement rates are set and regularly reviewed. The company uses a detailed learner monitoring system effectively to ensure that qualifications are achieved to the agreed timescale. QinetiQ has produced a comprehensive list of competences required for each role in the company's operational sections. It uses a database to match each learner in the section to an appropriate role. Details of learners leaving training are entered onto the competence database.

19. QinetiQ has a good staff development programme. The company's staff training policy seeks to develop a culture of involvement and learning at all levels of the business. This policy includes the learners, many of whom take advantage of it by studying for either national or higher national certificates at a local college. The ETS is also willing to sponsor learners in other training if the programmes are of benefit to the company. Staff are encouraged and supported to take courses in education, assessment and engineering.

20. Internal communications in QinetiQ are generally effective. The training manager holds regular meetings with the engineering manager to discuss training issues, and

regular team briefings are held. An apprenticeship forum exists but learners have not requested a session for over a year because they felt there was little to discuss. Staff are kept informed of corporate issues through the company intranet which was installed in 2001. The ETS uses the QinetiQ staff bulletin to publicise itself and is developing a website to keep the company's employees better informed of its activities. On-the-job communications between the operating sections and the ETS's staff have improved recently with training staff regularly visiting the operating sections to monitor training and progress.

21. Resources are deployed well. Staffing levels are good and staff turnover is low. The staff are well motivated and enthusiastic. The ratio of training staff to learners is good, and enables staff to provide effective individual support to learners. Staff are well qualified and take every opportunity to maintain their expertise. The training workshops are equipped well with up-to-date machinery and well-maintained equipment. The practical resources for on-the-job training are excellent, with learners working on the most up-to-date aircraft and technology.

22. QinetiQ is committed to a policy of equality of opportunity in its employment practices. The company has a comprehensive equal opportunities policy that applies to all employees, including learners. The policy is reviewed regularly and is amended whenever necessary to reflect new anti-discrimination legislation. QinetiQ is also subject to the equal opportunities policy of the MoD, its principal customer. The ETS's equal opportunities policy takes both policies into account. It satisfactorily covers the procedures for reporting and dealing with harassment and other forms of discrimination.

23. Equality of opportunity is covered satisfactorily during induction. Learners interviewed could clearly recall the key issues and understood the complaints and grievance procedures. Learners had no concerns about equality of opportunity issues. However, equality of opportunity is not formally reinforced with learners. Progress reviews include no records of reinforcement of equality of opportunity issues.

24. QinetiQ provides good support for learners who have additional needs such as dyslexia. Applicants with problems associated with dyslexia are given additional time to complete selection tests and are supported by readers. Learners with physical disabilities have been supported through their programmes and have successfully completed their frameworks.

25. The single-storey ETS building, has ramp access but no toilet facilities for people with disabilities. Much of the practical work on aircraft requires learners to be able to work in confined spaces, to access aircraft on work platforms and to work outdoors in adverse weather conditions. The essential risk management of these workplace activities limits them to learners with unrestricted mobility. However, technical, project and other engineering-related roles in the company are open to learners with restricted mobility.

26. QinetiQ has well-established quality assurance procedures covering its principal business activities which are monitored through ISO 9000, an international quality assurance standard. **However, its overall quality assurance arrangements for training are**

unsatisfactory. The ETS quality assurance manual has been developed over the past three years. Many of its procedures are not sufficiently detailed and do not state how the activity will be monitored and analysed. None of the procedures are dated or numbered and there is no way of knowing if the current procedure is being used. No procedures or formal system exist for auditing of the manual, although some informal checking is done.

27. QinetiQ's arrangements for internal verification and skill assessment are satisfactory. The training school's staff includes four qualified internal verifiers and seven qualified assessors. Internal verifiers plan their activities satisfactorily with a level of observation and sampling that satisfies the awarding bodies' requirements.

28. **QinetiQ performs insufficient critical analysis to drive improvements.** The self-assessment report covers most issues affecting the company. However, it was produced with little input from staff and learners and does not identify all of the strengths and weaknesses identified during inspection. Observation reports from the on-the-job training are brief and do not contain sufficient information to enable the company to formulate plans for improvement. QinetiQ has produced a three-year development plan that clearly identifies a market assessment, staff development plans, financial and accommodation strategies and risk management. The plan is in its first year and its effectiveness cannot yet be judged.

The following strengths and weaknesses were identified during this inspection:

Leadership and management

Strengths

- successful matching of training to the company's needs
- good use of management information
- good staff development

Weaknesses

- insufficiently developed quality assurance procedures
- insufficient critical analysis to guide improvements

Engineering, technology & manufacturing

Strengths

- very good achievement and retention rates
- good training
- very effective programmes of learning
- strong emphasis on good workplace health and safety practices
- excellent training resources

Weaknesses

- insufficient involvement of learners in the progress review process
- insufficiently developed use of initial assessment

WHAT LEARNERS LIKE ABOUT QINETIQ LIMITED MOD BOSCOMBE DOWN:

- 'the fantastic experience'
- the good teaching methods
- the amount of help available
- working on live aircraft
- going straight into work rather than a classroom situation
- having a flight in an aircraft
- going on the outdoor leadership programme
- being treated as an adult, as an equal and with respect
- the really enthusiastic teachers
- the inspiring training

WHAT LEARNERS THINK QINETIQ LIMITED MOD BOSCOMBE DOWN COULD IMPROVE:

- the clarity of goals, targets, and deadlines for evidence collection
- timings on the new course - some may need reviewing
- the number of aircraft in the training centre
- the pastoral support - providing someone to talk to about social issues
- the opportunity to discuss/challenge class reports in private
- the communications between hangar staff and the ETS

KEY CHALLENGES FOR QINETIQ LIMITED MOD BOSCOMBE DOWN:

- further develop measures to compare performance and guide improvements
- develop a more self-critical culture
- further develop a standardised approach to the management of training in all sites
- involve learners more fully in the progress review process
- improve arrangements for initial assessment

DETAILED INSPECTION FINDINGS

LEADERSHIP AND MANAGEMENT

Grade 3

The following strengths and weaknesses were identified during this inspection:

Strengths

- successful matching of training to the company's needs
- good use of management information
- good staff development

Weaknesses

- insufficiently developed quality assurance procedures
- insufficient critical analysis to guide improvements

29. QinetiQ successfully matches training to the business needs of the company. Following the creation of QinetiQ in 2001, control of the ETS was transferred to the company's test and evaluation sector. Middle managers are clear in what they require from the programme and work together to ensure that the number of learners and standard of training meet the needs of the company. Senior managers are strongly committed to training, although a clear strategy for the apprenticeship programme is not in place. Some training staff in the ETS are unsure of the long-term strategy for training and do not fully understand where the ETS fits into the overall company. QinetiQ carries out a yearly review to identify how many learners are needed to support the business. Good links are maintained with the on-site managers to ensure that the training reflects the squadrons' needs. QinetiQ recently reviewed the company's training needs and has extended the modern apprenticeship to four years to enable the learners to become more fully trained before entering employment on the base. The most recent learner intake is being fully trained for flight line maintenance early in the programme following this change, which the section managers and the learners welcome.

30. QinetiQ uses management information well to support its business planning. It sets challenging targets for retention and achievement rates which it reviews regularly. The reasons for any learner leaving the programme early are thoroughly investigated. The learner monitoring system is detailed and used effectively to ensure that qualifications are achieved within the agreed timescale. Much of the progress monitoring is done manually as there are only a small number of learners on this programme and the training staff know each learner individually. QinetiQ has produced a comprehensive list of the competences required for each role in its operational sections, and uses a database to match each learner within the section to an appropriate role. Details of learners who leave training are entered onto the competence database. The operational sections provide feedback on the effectiveness of training. Analysis of their feedback indicates a high degree of satisfaction with the training. The engineering manager identifies what competences the company needs its staff to possess, and can influence

the content of the syllabus to ensure that future needs are met. The aim of the ETS is that all of its learners will enter employment on the base. This has been achieved for a number of years, with only one learner not being offered employment in the past five years.

31. The staff development programme is good. The QinetiQ staff training policy seeks to develop a culture of involvement and learning in the company at all levels. This policy includes the learners, many of whom take advantage of it by studying for either national or higher national certificates at a local college. The ETS is also willing to sponsor learners in other training if these programmes are of benefit to the company. Appraisals take place annually with a six-monthly review. QinetiQ identifies staff training opportunities that will support programme improvements as well as enabling employees to maximise their potential. Staff are encouraged and supported to take courses in education, assessment and engineering. Four training staff are currently studying at degree level with a university. Three staff members are working towards NVQs in training and development and one is working towards an assessor qualification. Apprentice masters currently undergo a half-day training programme before supervising learners. QinetiQ has identified that this is insufficient since some apprentice masters have not updated their skills during the significant amount of time they have been in post. The company is examining ways to develop the apprentice masters, to increase their usefulness for training and assessing learners and to improve the integration of on- and off-the-job training. The company holds the Investors in People award, which is a national standard for improving an organisation's performance through its people.

32. Internal communications are generally effective. The training manager holds regular meetings with the engineering manager to discuss training issues, and regular team briefings are held. An apprenticeship forum exists but has not met for over a year at the request of the learners, who felt there was little to discuss. The training manager plans to hold a forum in the near future. Staff are kept informed of corporate issues through the company intranet which was installed in 2001. The ETS uses QinetiQ's staff bulletin to publicise some of its activities and is developing a website to keep the company employees better informed of the activities of the training school. On-the-job communications between the operating sections and the ETS's staff have improved recently with training staff regularly visiting the operating sections to monitor training and progress. Some of the apprentice masters are not fully informed about the training requirements. The ETS is involved with few external organisations, and has limited opportunities to compare performance or share good practice with other similar organisations.

33. Resources are deployed well. Staffing levels are good and staff turnover is low. The staff are well motivated and enthusiastic. The ratio of teaching staff to learners is good, ranging from one trainer for each learner to one for every seven learners. This enables staff to provide effective individual support to learners. Staff are well qualified and take every opportunity to maintain their expertise. Enough staff are employed to ensure that all the trade specialisms required by the operational sections are covered well. However, apprentice masters are not always used to their full potential and some training and assessment opportunities are not taken. The company has identified this problem and is

currently investigating ways of improving the situation. The training workshops are equipped well, with up-to-date machinery and well-maintained equipment. Practical resources for on-the-job training are excellent, with the learners working on the most up-to-date aircraft and technology.

Equality of opportunity

Contributory grade 3

34. QinetiQ is committed to a policy of equality of opportunity in its employment practices. The company has a comprehensive equal opportunities policy that applies to all employees, including learners. The policy is kept under regular review and is amended whenever necessary to reflect current legislation concerning sexual, racial, and disability discrimination. QinetiQ is also subject to the equal opportunities policy of the MoD, its principal customer. The ETS's equal opportunities policy takes into account both policies, and satisfactorily covers the procedures for reporting and dealing with harassment and other forms of discrimination. There is no log for complaints but details are placed in learners' files. Learners have access to a telephone hotline for any issues affecting them. This is a confidential service and learners using it are not identified to management unless they request it.

35. Equality of opportunity is covered satisfactorily during the induction. Learners interviewed clearly recalled the key issues and understood the complaints and grievance procedures. Learners had no concerns about any issues related to equality of opportunity. However, equality of opportunity is not formally reinforced with learners. During progress reviews, no record is kept of reinforcement of equality of opportunity issues.

36. The subcontractor, a college of further education that is used for the additional qualifications, has satisfactory equality of opportunity policies and procedures. Equality of opportunity issues at the college are not an area of concern to learners.

37. One member of the QinetiQ training staff has been trained in equality of opportunity. The remaining staff have requested additional training in equality of opportunity and this has been planned. All staff have been issued with an up-to-date guide for work-based learning staff, which summarises the key legislation and covers a comprehensive range of equality and diversity issues. The guide provides information, guidance and advice for supporting trainers in the workplace. A CD-ROM containing more detailed information is also available for staff. These resources are updated monthly and contain information on the most recent legislation. Two members of staff have been trained in supporting learners who have dyslexia and this training is to be extended to the remaining staff who have requested it.

38. The company recognises that women are under-represented in the engineering workforce and has made concerted efforts to increase their participation. It uses data to compare its performance with the regional averages and to set targets for increasing the numbers of women applying for apprenticeships. It maintains close links with a number of local girls' schools and provides female pupils with opportunities for visits and work sampling days. Currently, one of the 25 learners on programme is a female learner. No

learners at QinetiQ are from minority ethnic groups. The representation of minority ethnic groups in the south Wiltshire area is less than 1 per cent, compared to the average for England and Wales of 9.1 per cent.

39. QinetiQ provides good support for learners who have additional needs such as dyslexia. Applicants with problems associated with dyslexia have been given additional time to complete selection tests and have been supported by readers. Other learners with physical disabilities have been supported through their programmes and have successfully completed their frameworks. The single storey training school has ramp access but no toilet facilities for people with disabilities. Much of the practical work on aircraft requires learners to be able to work in confined spaces, to access aircraft on work platforms and to work outdoors in adverse weather conditions. The essential risk management of these workplace activities limits them to learners with unrestricted mobility. However, technical, project and other related engineering activities in the company can be carried out by learners who have restricted mobility.

Quality assurance

Contributory grade 4

40. The ETS has a clear mission statement which establishes its commitment to provide QinetiQ with good-quality training for its aircraft technician learners to comply with its partnering agreement with the MoD. QinetiQ has strategic, business and operating plans which specify provision of excellence in learning. The company has well-established quality assurance procedures covering its principal business activities which are monitored through ISO 9000, an international quality assurance standard. It also has comprehensive policy and procedure manuals. However, these manuals do not specifically include training. The ETS's quality assurance manual has been developed over the past three years but is not yet comprehensive and does not currently cover all aspects of the training programme in sufficient detail. In some cases recording forms that are not in the manual are being used. Many of the procedures are not sufficiently detailed and do not state how the activity referred to will be monitored and analysed. None of the procedures are dated or have an issue number and there is no way of knowing if the current procedure is being used. QinetiQ has no procedure detailing auditing of the manual, and although some checking is done there is no formal audit system.

41. Internal verification of the level 2 and level 3 qualifications is satisfactory. QinetiQ has good assessment and internal verifier coverage, with seven qualified assessors and four qualified internal verifiers. The awarding bodies' external verifier reports have been complimentary and have not identified any causes for concern.

42. QinetiQ collects feedback from learners after each taught topic using the course critique and a post-examination questionnaire. These are analysed by the training manager, and any concerns are discussed with the trainer and any necessary remedial actions are agreed. This is usually done verbally, and insufficient records are kept to show improvements that have been made as a result of this feedback.

43. QinetiQ's observation of off-the-job training is satisfactory. Each member of staff is

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observed three times a year, and although lessons are not graded, feedback is given to the staff and suggestions made as to how they can improve their delivery.

44. QinetiQ performs insufficient critical analysis to bring about improvements. Reports of observation of on-the-job training are brief and do not contain sufficient information to enable the company to formulate plans for improvement. The self-assessment report covers most issues affecting the organisation but does not fully explore the extent of the strengths and weaknesses. The report was produced with insufficient input from staff and learners and used information collected from course critiques and other forms of feedback. Many of the strengths identified in the self-assessment are no more than normal practice and inspectors identified strengths and weaknesses not identified in the report. QinetiQ has produced a three-year development plan that clearly identifies a market assessment, staff development plans, financial and accommodation strategies and risk management. The plan is in its first year and it is not yet possible to judge its effectiveness.

AREAS OF LEARNING

Engineering, technology & manufacturing

Grade 2

Programmes inspected	Number of learners	Contributory grade
Work-based learning for young people	25	2

The following strengths and weaknesses were identified during this inspection:

Strengths

- very good achievement and retention rates
- good training
- very effective programmes of learning
- strong emphasis on good workplace health and safety practices
- excellent training resources

Weaknesses

- insufficient involvement of learners in the progress review process
- insufficiently developed use of initial assessment

Achievement and standards

45. Retention and achievement rates are very good. Of those learners who started their training within the past three years, 81 per cent are still in learning. The framework completion rate for those learners whose courses have reached their scheduled end since 1999-2000 is 89 per cent. Standards of work in the aerospace industry are demanding, with no margin for error. Learners are expected to operate at these skill levels from the beginning of their programme. Learners successfully acquire good levels of practical skills in aircraft maintenance and are able to work alongside more experienced technicians and fitters early in their programmes. Key skills qualification achievement rates are good. All learners achieve key skills qualifications at the level required for the framework. Thirty per cent of the current intake of learners have already achieved or are working towards key skills qualifications at a level higher than that required for their frameworks.

The following table shows the achievement and retention rates available up to the time of the inspection.

LSC funded work-based learning																
Advanced modern apprenticeships (AMA)	2003-04		2002-03		2001-02		2000-01		1999-2000		1998-99					
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
	Number of starts	10		7		14		10		18		16				
Retained*	0		0		0		10		15	83	13					
Successfully completed	0		0		0		10		15	83	13					
Still in learning	10		6		9		0		0	0	0					

*retained learners are those who have stayed in learning for at least the planned duration of their training programmes, or have successfully completed their programme within the time allowed

Quality of education and training

46. On- and off-the-job training are good. Background knowledge and skills training is delivered by experienced and well-qualified staff. Learning is planned well. QinetiQ makes good use of innovative and effective learning aids. Examples include the use of automotive components to introduce certain aspects of aerospace technology, and practical field surveying techniques to support key skills training. Trainers use a variety of well-prepared training aids. During on-the-job training and development periods, learners are supervised by apprentice masters, all of whom are former learners. Learners are encouraged to work towards and gain additional qualifications that are beyond the requirements of the modern apprenticeship framework. The relationships between training staff, apprentice masters and learners are very productive and are based on mutual respect. Learners are very enthusiastic at all stages of the programme.

47. QinetiQ provides excellent learning and development resources. The basic aircraft engineering skills training area is spacious and equipped very well with a selection of fixed-wing and rotary-wing aircraft, as well as a wide range of aircraft components. Learners benefit from having access to and using up-to-date in-service equipment. Learners begin work on live, state-of-the-art equipment, including in-service aircraft, at a very early stage of their programme. All learners who started training in 2003 completed a flight line engineering mechanic's course in the first four months of training. This familiarises them with standard aircraft flight line practices, such as flight servicing, aircraft refuelling, towing and marshalling operations. Learners then work in the squadrons' aircraft maintenance hangars further developing these skills before starting their technical engineering training. QinetiQ operates a wide range of aircraft, both fixed-wing and rotary-wing, including types such as Tornado, Harrier, Jaguar, Hercules, BAC-111, Gazelle, Lynx and Merlin. Many of these aircraft have been significantly modified, with technologically advanced systems and installed equipment under trial that makes them unique and extremely costly. Learners are also introduced to the practical aspects of many other high-technology research and development level projects during their work

in the squadrons and experimental laboratories.

48. QinetiQ's programmes of learning are highly effective. The structure and delivery systems of learning programmes are closely aligned to the varying business needs of the diverse squadrons in the establishment. Learners are prepared well for immediate deployment to any or all of the working areas. All except one of the learners completing training over the past five years have progressed to full employment with QinetiQ. The additional learning offered to all learners contains components at junior and middle management level, such as project management and business management for technicians, in preparation for the supervisory roles which QinetiQ expects them to reach.

49. QinetiQ sets demanding standards for health and safety in all of its operations, particularly in respect of aircraft servicing and maintenance. It places a strong emphasis on good standards of workplace health and safety, starting at the induction phase of the programme. One staff member holds a national qualification in occupational health and safety. The ETS has achieved a gold award for the past three years from a national safety organisation. The correct use of personal protective equipment is emphasised throughout the training programme.

50. The arrangements for key skills training and assessment are good. QinetiQ uses accreditation of prior learning well. Learners complete a series of projects and assignments which have been matched to the key skill units. Key skills training and assessment are integrated with the learning programme and qualifications are completed during the first 18 months of learning.

51. QinetiQ's arrangements for internal verification and skill assessment are satisfactory. The ETS's staff include four qualified internal verifiers and seven qualified assessors. Authorised expert witnesses make competence judgements at level 3 which are then validated by an assessor. Internal verifiers plan their activities satisfactorily with a level of observation and sampling that satisfies the awarding bodies' requirements.

52. Learners are not involved enough in the progress review process. Learners do not receive individual reviews. They receive monthly reports which outline classroom and practical achievement. These reports are given out in class sessions. Some learners have not felt confident enough to challenge or question review comments in the presence of their peers. Targets and goals for achievement are not discussed in the review and no discussion of pastoral care issues takes place. Review forms do not include recommendations for improvement. The review forms used in the workplace differ from those used in the training school. No evidence exists of co-ordination of reviews conducted in the different training or work locations.

53. QinetiQ's arrangements for initial assessment are not sufficiently developed. Candidates take a series of initial aptitude tests at recruitment which are used to identify suitable potential entrants to the programme. The results of these tests are not used in the production of individual learning plans or to identify individual learning needs. QinetiQ places great reliance on candidates achieving good GCSE grades as a selection

criterion because of the demands of the advanced modern apprenticeship framework and the requirement for learners to develop good technical skills. No current arrangements are currently in place to measure literacy and numeracy skills competence, and learners' literacy and numeracy skills are not specifically assessed following selection.

Leadership and management

54. QinetiQ's management of the training programmes is satisfactory. It monitors learners and their progress well. Staff have good, detailed knowledge of their current and former learners. On-the-job training is not formally structured by the training centre staff but is dependent on the operational requirements of the squadrons and test laboratories. Line supervisors and apprentice masters strongly influence the on-the-job programme, which must comply with comprehensive aircraft procedures and servicing schedules.