

INSPECTION REPORT

Serco Defence and Aerospace

15 December 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

Serco Defence and Aerospace

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INSPECTION REPORT

DESCRIPTION OF THE PROVIDER

1. Serco Group plc is a facilities management company that provides manpower and management services for various civilian and Ministry of Defence (MoD) government contracts worldwide. Serco Group plc was formed in 1988 and employs over 36,000 staff in 35 countries, about 40 per cent of whom are based at military sites.
2. Serco Defence and Aerospace (Serco) is an operating division of Serco Group plc and is a wholly owned subsidiary of the parent company. Serco's Naval Air Command contract provides aircraft engineering and aviation support services to the Fleet Air Arm at the Royal Naval Air Station Yeovilton, Somerset where it has a workforce of approximately 290. Serco started training its own aircraft engineering apprentices at Yeovilton in November 2001 as a long-term solution to an existing and predicted future shortage of trained aircraft engineers.
3. Serco offers advanced apprenticeships in aircraft engineering for learners at Yeovilton. Operational control of programme is the responsibility of the training manager, who also manages the company's quality, environment, safety and competence arrangements at the naval air station. The training manager has a team of four instructors who are also trained assessors. The training centre, which is adjacent to the aircraft servicing hangars, has a well-equipped classroom and good information technology (IT) facilities. Serco's advanced apprenticeship programme is funded by Somerset Learning and Skills Council.

SCOPE OF PROVISION

Engineering, technology & manufacturing

4. Serco has 16 learners studying for a four-year advanced apprenticeship in engineering, technology and manufacturing. Fifteen are studying aircraft maintenance engineering and one general engineering. All learners are employed by Serco. In the first year learners attend the company training centre at the naval air station for a three-week induction course followed by alternating periods in the training centre for off-the-job training and the aircraft maintenance hangars and workshops for on-the-job training working towards a national vocational qualification (NVQ) at level 2 in performing engineering operations, and three key skills units at level 2. In the second year of the programme they attend a local college on day release for the first year of a two-year technical certificate course and work towards a level 3 NVQ in either aircraft engineering or general engineering. In addition to the second year of the technical certificate at college most of the training for learners in the third year of their programme takes place on the job in the aircraft maintenance hangars and workshops. Additional background knowledge training takes place in the training centre classroom. Learners complete their level 3 NVQ in their third and fourth years and are also trained in sheet metal fabrication techniques.

ABOUT THE INSPECTION

| | |
|--|----|
| Number of inspectors | 2 |
| Number of inspection days | 6 |
| Number of learner interviews | 11 |
| Number of staff interviews | 6 |
| Number of employer interviews | 2 |
| Number of subcontractor interviews | 1 |
| Number of locations/sites/learning centres visited | 2 |
| Number of visits | 2 |

OVERALL JUDGEMENT

5. The quality of the provision is adequate to meet the reasonable needs of those receiving it. More specifically, Serco's leadership and management are satisfactory, as are its approach to equality of opportunity and its arrangements for quality assurance. Training in engineering, technology and manufacturing is satisfactory.

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 | | 3 |

| Engineering, technology & manufacturing | | 3 |
|---|--------------------|--------------------|
| Contributory areas: | Number of learners | Contributory grade |
| Other contributory areas - Work-based learning for young people | 16 | 3 |

KEY FINDINGS

Achievement and standards

6. **Retention rates are outstanding.** All 16 learners starting their advanced apprenticeships in the three intakes since the programme began in November 2001 are still in learning.
7. The rate of completion of key skills qualifications is now satisfactory, having started slowly. All of the learners starting advanced apprenticeships in 2001-02 and 2002-03 have completed the tests. Three of the four learners starting in 2004-05 have exemptions from key skills tests.
8. **Learners are progressing well in acquiring good levels of practical skills in aircraft maintenance and servicing.** They are working alongside experienced fitters and technicians as fully integrated members of the aircraft maintenance and ground support engineering teams.
9. **Progress towards completion of the framework is slow for the first intake of learners,** who started in 2001-02. All of them will finish their programme after its planned end date following a delayed start to the technical certificate course.

Quality of education and training

10. **On- and off-the-job training is good throughout the advanced apprenticeship.** Training centre staff are well qualified and have considerable experience of aircraft maintenance and engineering in military and civilian environments in the UK and overseas. The centre classroom is well equipped and provides a good setting for study.
11. Learners are prepared well for the advanced apprenticeship by a good three-week induction programme. This covers a broad range of topics including health and safety, equality of opportunity, aircraft and flight safety precautions, employee rights and responsibilities, customer relations and working with the Royal Navy.
12. Learners are prepared well for the practical phases of the programme working in an aircraft engineering environment. They are trained in a range of essential aircraft maintenance tasks, such as moving aircraft, refuelling, defuelling, slinging and lifting, jacking, use of ground support equipment and the erection of mobile work platforms. Learners particularly value this phase of their training because of the opportunity it gives them early in the programme to carry out real aircraft engineering activities.
13. Learners develop good levels of practical skills during their on-the-job training. At an early stage in the programme, learners work alongside experienced fitters and technicians in the Royal Navy aircraft maintenance group hangars on Lynx and Sea King rotary-wing aircraft or with the Sea Harrier squadron. Learners are fully involved in the complete strip-

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down of operational aircraft, cleaning parts and areas, examination and replacement of components and the rebuild of the aircraft. Finally, learners carry out work on testing all the aircraft systems, ground runs of engines and preparation for test flights.

14. Learners are given a flight in a light aircraft early in their training programme to demonstrate the basic principles of flight and the effects of aircraft control systems. They report that they value this part of the programme greatly. Learners use a digital camera during the flight to photograph the aircraft interior and local points of interest, including their homes, for inclusion in their key skills portfolios.

15. Assessment and internal verification are satisfactory. The training centre is an approved centre for the assessment of engineering NVQs. All the centre's staff hold assessor qualifications and Serco has a further 13 qualified assessors in its workforce who are available throughout the working areas. Learners are assessed extensively through observation. A wide range of other assessment methods are used to augment direct observations including written assignments and portfolios of evidence, often supplemented by audio tapes and digital photographs.

16. Learners' progress is monitored effectively by written end-of-module examinations and individual questioning. Assessment is prompt and effective and learners are quickly informed of their progress. In addition to the end-of-module progress reviews, which take place regularly throughout the programme, learners are given comprehensive quarterly reviews. Supervisors contribute to learners' reviews by completing regular reports on the learners in their work areas.

17. Learners receive good learning and pastoral support throughout their training. The ratio of instructors to learners is good, and learners have regular and unrestricted access to advice and guidance on all aspects of their training. Each learner has an individual personal mentor/tutor from the training department. Line supervisors provide additional monitoring and support in the workplace. They are enthusiastic about their role as workplace mentors and take an active and effective interest in the completion of the module task books by their assigned learners.

18. Serco pays careful attention to the health and safety of learners, particularly in the context of aircraft maintenance and operations. Nominated employees are trained as health and safety wardens in the workplace. They carry out six-monthly inspections of all of the company's departments, supported by the Royal Navy which audits Serco's health and safety arrangements annually. Activities such as induction and background knowledge training emphasise the importance of health and safety. Learners have a clear understanding of health and safety.

Leadership and management

19. **Serco's strategic direction to develop aircraft engineering apprenticeships is good.** All staff clearly appreciate the importance of recruiting young people into the aircraft engineering and aviation support services industries. The company has recognised the need to develop close links and a good reputation with the local community to recruit

apprentices. It has a good relationship with a local general further education college for the delivery of technical certificates. Serco invests significant amounts in the apprenticeship programme. All departmental managers contribute funding from their budgets towards the development of training for young people. Staff members demonstrate a clear understanding of the training unit's aims, objectives and values.

20. **Serco manages resources well.** It has made a significant investment in teaching and learning resources, including an electronic whiteboard and a digital camera to record learners' assessed work. The ratio of computers to learners is high, and learners make good use of access to the internet and the company's intranet. They appreciate the informal atmosphere and familiar surroundings of the training centre. Learners use good resources in the workplace and develop their skills using a wide range of aircraft. The training unit has close links with the Royal Naval engineering training school, also located at the naval air station.

21. Serco's arrangements for the management of literacy, numeracy and language support are satisfactory. The company does not have a policy or strategy for providing additional learning support, but staff appreciate the importance of this support for learners. A key skills policy is in place. Learners' preferred learning styles are assessed during induction so staff can discover how learners might react in different situations in the workplace. Staff carry out an initial assessment of learners' literacy and numeracy skills. Learners identified as in need of additional help receive appropriate support through the local college or staff employed by Serco in other departments.

22. The company's management of information is satisfactory. Staff in the training unit maintain a central system of learners' data, which they use to monitor learners' progress. Staff do not always review learners' progress and achievements formally during staff meetings, but good internal communications ensure that instructors regularly update progress records. All staff are based in the training centre and work closely together. They maintain daily contact through regular formal and informal meetings.

23. Serco is fully committed to a policy of equality of opportunity for all of its employees, including learners. It has satisfactory written procedures to cover all current legislation which clearly expresses its intention to ensure that no employee is discriminated against on any grounds. Serco keeps its policy under review and amends it to meet changes in legislation. The company also ensures that its arrangements for equality of opportunity complement those of its customer, the Royal Navy.

24. Induction covers equality of opportunity satisfactorily, using sessions on employment rights and responsibilities very effectively to introduce and discuss the topic of discrimination. Instructors make good and innovative use of the local history of the Tolpuddle Martyrs to illustrate the discussion of rights and responsibilities. Learners clearly recalled their initial training on equality of opportunity and had a good understanding of the key points. Progress reviews are used satisfactorily to reinforce equality of opportunity.

25. Learners have a good understanding of the complaints and appeals procedures and

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are confident that they know who to approach with any personal or training-related concerns. Three of the learners are women and they are able to discuss confidentially anything concerning them with female staff in the department. Learners have direct access to the elected members of the works committee should they have any concerns about their employment and training which they wish to keep private from the training department.

26. Access for learners with restricted mobility is good at the training centre and the subcontractor. However, practical work on aircraft often requires learners to be able to access aircraft by work platforms and through narrow hatches. Much aircraft flight servicing is conducted outdoors and in all weather conditions. The essential health and safety, and risk management of these activities precludes the participation of learners with restricted mobility. However, learners with restricted mobility are not prevented from starting apprenticeships because some technical and other related engineering-based activities do not require full mobility.

27. Serco's quality assurance of the training programmes is satisfactory. The training manager has responsibility for quality assurance. Serco has an integrated management system which fulfils the requirements of ISO 9001 and other similar international quality assurance standards. The training manager and company-trained internal auditors carry out internal audits of the company's systems and procedures. However, Serco does not have a quality assurance policy or framework which specifically links the arrangements for quality assurance of the apprenticeship programme. Very few quality assurance procedures cover the key stages of the training programme. However, internal communications are good and the number of staff in the training unit is small, and all learners have a consistent experience throughout their training.

28. Serco has written a detailed service level agreement for the delivery of technical certificates at the local college. The college's responsibilities for quality assurance are clearly identified in the agreement. However, it is too early to judge the effectiveness of these arrangements on the quality of learning sessions at the college. Some staff in the training unit are not fully aware of the college's quality assurance arrangements, and staff at the college are unclear about who is responsible for carrying out classroom observations of learning sessions. Staff have worked well together to immediately resolve any problems that learners have identified with their training at the college.

29. Staff at the local college carry out most of the classroom observations of background knowledge training at the naval air station as part of the instructors' teacher training. College staff give the instructors detailed feedback, and identify appropriate actions to help instructors improve their teaching practice. Instructors are not always regularly observed once they have completed their teacher training course, and Serco has no overall plan for the regular observation of learning sessions. It has identified the need to introduce its own classroom observation scheme, however, and has recently introduced peer assessments of learning sessions.

30. Serco's arrangements for internal verification are satisfactory. Three internal verifiers work closely with workplace supervisors who act as assessors and instructors to plan

assessment opportunities. Workplace supervisors are involved in the development of action plans for the achievement of NVQ units. Assessment practices are effective. Internal verifiers meet with assessors at standardisation meetings to distribute information received from awarding bodies and discuss changes to assessment plans. However, these meetings are not always used to ensure that assessors' judgements are consistent.

31. The self-assessment process is effective. Serco uses the views of staff and learners to identify its strengths and weaknesses. The report identifies most of the strengths and weaknesses found by inspectors in the area of learning and in Serco's leadership and management. However, some of the areas identified as strengths are no more than normal practice and the impact on the learners of other strengths are not clearly explained.

32. The company carries out insufficient planning of some aspects of the training programme. Its annual planning cycle to link strategic objectives to target-setting and business planning is weak. The training unit does not have a business plan which sets targets for apprenticeships or objectives for the long-term development of the training unit. Staff are not set specific measurable targets to bring about continuous improvements to the training programme, although they have a good awareness of the weaknesses which need to be rectified. The company's development plan contains very few targets.

33. Key skills training and assessment are not sufficiently integrated with the programme. Although some learners have been in training for three years, Serco only started to deliver technical certificates in September 2004, in partnership with the local college. Some aspects of the technical certificates have not been sufficiently planned. Serco has identified the weaknesses in the planning of these aspects of the apprenticeships. It has already started to take actions to integrate key skills qualifications into the programme and to develop better partnership working with the local college for the delivery of technical certificates.

Leadership and management

Strengths

- good strategic direction to develop aircraft engineering apprenticeships
- good management of resources

Weaknesses

- insufficient planning of some aspects of the training programme

Engineering, technology & manufacturing

Other contributory areas

Strengths

- very good retention rates
- good training
- good practical skills development

Weaknesses

- slow progress towards framework completion for 2001-02 starters

WHAT LEARNERS LIKE ABOUT SERCO DEFENCE AND AEROSPACE:

- working on real aircraft
- having lots of experienced people willing to help
- that everything is so accessible
- the friendly staff everywhere
- learning new practical things
- the good programme

WHAT LEARNERS THINK SERCO DEFENCE AND AEROSPACE COULD IMPROVE:

- the amount of individual feedback on end-of-module tests, and showing learners their papers after marking
- the amount of practice learners get on working to procedures on training equipment before starting on real aircraft
- the provision of electrical training - 'it seems to be mainly mechanical'
- the amount of aircraft engineering offered at college rather than ordinary engineering

KEY CHALLENGES FOR SERCO DEFENCE AND AEROSPACE:

- ensure that learners complete their frameworks
- maintain learners' retention rates
- continue to improve planning of the training programme
- further integrate key skills qualifications into the vocational programme
- continue to develop the technical certificate programme with the subcontractor

DETAILED INSPECTION FINDINGS

LEADERSHIP AND MANAGEMENT

Grade 3

Strengths

- good strategic direction to develop aircraft engineering apprenticeships
- good management of resources

Weaknesses

- insufficient planning of some aspects of the training programme

34. Serco's strategic direction to develop aircraft engineering apprenticeships is good. All staff, including the contract manager, clearly appreciate the importance of recruiting young people into the aircraft engineering and aviation support services industries. The company has recognised the need to develop close links and a good reputation with the local community to recruit young people into apprenticeships. Serco has a good relationship with a local general further education college for the delivery of technical certificates. The parent company, Serco Group plc, provides a clear strategic direction and strong corporate commitment. The contract manager was responsible for the introduction of apprenticeships to Serco. The company makes a significant investment in the apprenticeship programme. All of the company's departmental managers contribute funding from their budgets towards the development of training for young people. Staff demonstrate a clear understanding of the training unit's aims, objectives and values. Learners benefit from the high levels of enthusiasm and commitment shown by instructors. Each instructor acts as a mentor for a small number of learners. The training unit has carried out training with workplace supervisors to make them more aware of the importance of apprenticeships.

35. Serco manages its resources well. It has made a significant investment in teaching and learning resources, including an electronic whiteboard and a digital camera to record learners' assessed work. The ratio of computers to learners is high, and learners make good use of access to the internet and the company's intranet. They appreciate the informal atmosphere and familiar surroundings of the training centre. Learners use good resources in the workplace and develop their skills using a wide range of aircraft. The training unit has close links with the Royal Naval engineering training school, also located at the naval air station. Staff in the training unit deliver supervisory management and customer service training to the company's employees at other sites. The instructors have been supported well to gain teaching qualifications and assessors' awards. Staff development focuses clearly on areas of training which have a high priority.

36. Serco's arrangements for the management of literacy, numeracy and language support are satisfactory. The company does not have a policy or strategy for providing additional learning support, but staff appreciate the importance of this support for learners. A key skills policy is in place. Staff identify learners' preferred learning styles

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during induction so that they can assess how learners might react in different situations in the workplace. Staff carry out an initial assessment of learners' literacy and numeracy skills. Learners identified as in need of additional help receive appropriate support through the local college or staff employed by Serco in other departments. For example, one learner with dyslexia has been given individual support in sessions held at the naval air station. Three learners achieved general certificates of secondary education in mathematics and another learner has gained a literacy and numeracy qualification at the local college. However, Serco has not made staff at the college who deliver the technical certificate fully aware of individual learners' particular needs. For example, college staff did not know that one of the learners is dyslexic. No written reports are produced on the effectiveness of the support provided.

37. Serco's management of information is satisfactory. Staff who work in the training unit maintain a central system of learners' data, which is used to monitor the progress of learners. Learners' progress and achievements are not always formally reviewed during staff meetings, but good internal communications ensure that instructors regularly update progress records. All staff are based in the training centre and work closely together. They maintain daily contact through regular formal and informal meetings.

38. Serco carries out insufficient planning of some aspects of the training programme. Its annual planning cycle to link strategic objectives to target-setting and business planning is weak. The training unit does not have a development plan which sets targets for apprenticeships or objectives for the long-term progression of the training unit. Staff are not set specific measurable targets to bring about continuous improvements to the training programme, although they have a good awareness of the weaknesses which need to be rectified. The company's development plan contains very few targets. The previous training manager was not sufficiently aware of the requirements to deliver apprenticeships. Key skills training and assessment are not sufficiently integrated with the training programme. Although some learners have been in training for three years, the company only started to deliver technical certificates in September 2004, in partnership with the local college. Some aspects of the technical certificates have not been sufficiently planned. For example, staff have only recently started to discuss whether learners who have already studied background knowledge modules can be accredited for prior learning on their technical certificates. A small number of learners do not understand the purpose of the technical certificates. Serco has identified the weaknesses in the planning of these aspects of the apprenticeships, and has already started to take actions to improve the integration of key skills qualifications and to develop better partnership working with the local college for the delivery of technical certificates. Serco has had difficulty in identifying a suitable technical certificate which meets the needs of its learners, that could be provided by the local college. It has recently introduced a new timetable for the training programme.

Equality of opportunity

Contributory grade 3

39. Serco is fully committed to a policy of equality of opportunity for all of its employees, including learners. The company has satisfactory written procedures to cover all current legislation which clearly express its intention to ensure that no employee is discriminated

against on any grounds. The company's policy is kept under review and amended to meet changes in legislation. Serco also ensures that its arrangements for equality of opportunity complement those of its customer, the Royal Navy.

40. Induction covers equality of opportunity satisfactorily, using sessions on employment rights and responsibilities very effectively to introduce and discuss discrimination. Instructors make good and innovative use of the local history of the Tolpuddle Martyrs to illustrate the discussion of rights and responsibilities. Learners clearly recalled their initial training on equality of opportunity and had a good understanding of the key points. Progress reviews are used satisfactorily to reinforce equality of opportunity.

41. Learners have a good understanding of the complaints and appeals procedures and are confident that they know who to approach with any concerns. Serco operates an open-door policy and all learners have direct access to the training manager and the contract manager. Those with financial problems are able to seek advice and guidance from the finance and personnel departments. Three of the learners are women and they are able to discuss any concerns confidentially with female staff in the department. Serco has a works committee comprising elected members from the workforce. Learners have direct access to the works committee members should they have any concerns about their employment and training which they wish to keep private from the training department.

42. The subcontracting college has satisfactory equal opportunities policies and procedures. Learners do not have any concerns over equality of opportunity at the college.

43. No learners at Serco are from minority ethnic groups. This reflects the low representation of minority ethnic groups in Somerset, which stands at 1.2 per cent of the population according to the 2001 census. The company has a corporate social responsibility policy by which it seeks actively to employ local people and all learners have been recruited locally. Three learners, approximately 20 per cent of the total, are women. Many of the learners, including the three women, attended the company as students for work experience before applying for apprenticeships.

44. Access for learners with restricted mobility is good at the training centre and the subcontractor. However, practical work on aircraft often requires learners to be able to access aircraft by work platforms and through narrow hatches. Much aircraft flight servicing is conducted outdoors and in all weather conditions. The essential health and safety, and risk management of these activities precludes the participation of learners with restricted mobility. However, learners with restricted mobility are not prevented from starting apprenticeships because some technical and other related engineering-based activities do not require full mobility.

Quality assurance

Contributory grade 3

45. Serco's quality assurance of the training programmes is satisfactory. The training manager is responsible for quality assurance. Serco has an integrated management

SERCO DEFENCE AND AEROSPACE

system, which fulfils the requirements of ISO 9001 and other similar international quality assurance standards. The training manager and company-trained internal auditors carry out internal audits of the company's systems and procedures. However, Serco does not have a quality assurance policy or framework which specifically links the arrangements for quality assurance of the apprenticeship programmes. Very few quality assurance procedures are in place to cover the key stages of the training programme. However, the number of staff in the training unit is small and internal communications are good, and all learners have a consistent experience throughout their training. Staff are fully aware of the need to ensure that important paperwork is completed correctly, and they work well together to maintain the quality of individual learning plans and progress reviews. All instructors use detailed learning session plans and schemes of work to deliver background knowledge training. Once staff in the training unit recognise the need for improvements to the training programme, they work hard to bring about the necessary changes.

46. Serco has written a detailed service level agreement for the delivery of technical certificates at the local college. The agreement clearly identifies the college's responsibilities for quality assurance. However, it is too early to judge the effectiveness of these arrangements on the quality of learning sessions at the college. Some staff in the training unit are not fully aware of the college's quality assurance arrangements, and staff at the college are unclear about who is responsible for carrying out classroom observations of learning sessions. Staff have worked well together to immediately resolve any problems learners have identified with their training at the college.

47. Staff from the local college have carried out most of the classroom observations of background knowledge training at the naval air station as part of the instructors' teacher training. They give the instructors detailed feedback and identify appropriate actions to help them improve their teaching practice. However, classroom observations focus too much on teaching and not enough emphasis is given to learning and attainment. Instructors are not always regularly observed once they have completed their teacher training course, and Serco has no overall plan for the regular observation of learning sessions. It has identified the need to introduce its own classroom observation scheme, however, and has recently introduced peer assessments of learning sessions. Staff carry out some useful informal sharing of good practice and work closely together to check the quality of each others' work.

48. Learners' feedback is collected at the end of each background knowledge unit. Responses are analysed and actions are taken to resolve any problems identified by learners. For example, instructors have re-worded examination questions where learners' feedback has indicated that the wording of the questions is unclear. Improvements to the availability of classrooms have been made following comments made by learners.

49. Serco's arrangements for internal verification are satisfactory. Three internal verifiers work closely with workplace supervisors who act as assessors and instructors to plan assessment opportunities. Workplace supervisors are involved in the development of action plans for the achievement of NVQ units. Assessment practices are effective. Appropriate paperwork is used to record the outcomes of internal verification, and

internal verifiers' comments help assessors to improve their assessment practice. Internal verifiers meet with assessors at standardisation meetings to distribute information received from awarding bodies and discuss changes to assessment plans. However, these meetings are not always used to ensure that assessors' judgements are consistent.

50. The self-assessment process is effective. Serco has produced two annual self-assessment reports and wrote its most recent draft self-assessment report in November 2004. The company uses the views of staff and learners to identify its strengths and weaknesses. The report identifies most of the strengths and weaknesses found by inspectors in the area of learning, and leadership and management. However, some of areas identified by Serco as strengths are no more than normal practice, and the impact on the learners of other strengths is not clearly identified. The grades given by the inspectors matched the grades that Serco gave itself.

AREAS OF LEARNING

Engineering, technology & manufacturing

| Engineering, technology & manufacturing | | 3 |
|---|--------------------|--------------------|
| Contributory areas: | Number of learners | Contributory grade |
| Other contributory areas - Work-based learning for young people | 16 | 3 |

Other contributory areas

Strengths

- very good retention rates
- good training
- good practical skills development

Weaknesses

- slow progress towards framework completion for 2001-02 starters

Achievement and standards

51. Retention rates for learners since the introduction of the programme are outstanding. All 16 learners starting their apprenticeships in the three intakes since the programme began in November 2001 are still in learning. All the 2001-02 starters and three of the 2002-03 starters have made satisfactory progress in completing their level 2 NVQs. The rate of completion of key skills qualifications is now satisfactory, after a slow start, with all of the learners starting in 2001-02 and 2002-03 having completed the tests. Three of the four learners starting in 2004-05 have exemption from key skills tests. Learners are progressing well in acquiring good levels of practical skills in aircraft maintenance and servicing. They are working alongside experienced fitters and technicians as fully integrated members of the aircraft maintenance and ground support engineering teams.

52. Progress towards completion of the framework is slow for the first group of learners who started in 2001-02. All of them will finish their programme after its planned end date, following a delayed start to the technical certificate course. Serco was unable to identify and agree a suitable technical certificate course that satisfied the requirements of the aircraft engineering content of the apprenticeship. Protracted discussions between the regulatory authority and appropriate awarding bodies further delayed the identification of an acceptable course. The nearest college offering a suitable course at the start of the programme in 2001 was 70 miles from Yeovilton. Serco finally agreed a suitable programme with a local college in 2004. The 12 learners starting in 2001-02 and 2002-03 began their level 3 technical certificate in engineering in September 2004. Progress towards framework completion is satisfactory for the five learners starting in

2002-03 and the four starting in 2004-05.

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

| LSC funded work-based learning | | | | | | | | | | | | | | | |
|--------------------------------|---------|---|---------|---|---------|---|-----|---|-----|---|-----|---|-----|---|-----|
| Advanced apprenticeships | | | | | | | | | | | | | | | |
| | 2004-05 | | 2002-03 | | 2001-02 | | | | | | | | | | |
| | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. |
| Number of starts | 4 | | 5 | | 7 | | | | | | | | | | |
| Retained* | 0 | | 0 | | 0 | | | | | | | | | | |
| Successfully completed | 0 | | 0 | | 0 | | | | | | | | | | |
| Still in learning | 4 | | 5 | | 7 | | | | | | | | | | |

*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

53. On- and off-the-job training is good throughout the advanced apprenticeship. Training centre staff are well qualified and have considerable experience of aircraft maintenance and engineering in military and civilian environments in the UK and overseas. The ratio of off-the-job instructors to learners is good, with four instructors for 16 learners. The centre's classroom is well equipped and provides a good setting for study. IT facilities are good, with sufficient modern workstations, printers/photocopiers, internet access and an appropriate range of software. A good three-week induction programme prepares learners well for the apprenticeship programme. The induction covers a broad range of topics including health and safety, equality of opportunity, aircraft and flight safety precautions, employees' rights and responsibilities, customer relations and working with the Royal Navy. During induction Serco uses a learning styles questionnaire to identify learners' preferred learning styles.

54. Following their induction learners are prepared well for the practical phases of the programme working in an aircraft engineering environment. They are trained in a range of essential aircraft maintenance tasks, such as moving aircraft, refuelling, defuelling, slinging and lifting, jacking, use of ground support equipment and the erection of mobile work platforms. Learners particularly value this phase of their training because of the opportunity it gives them early in the programme to carry out real aircraft engineering activities. The Royal Navy aircraft maintenance hangars are adjacent to the training centre and staff make effective use of the ready access to in-service aircraft as additional resources to illustrate learning sessions. Most on-the-job training takes place on current in-service aircraft and learners benefit from this at the outset of their programme. Serco is able to use the Royal Navy's engineering training centre which has an extensive range of training aids and sectioned aircraft fuselages and aero-engines. Learners are given a flight in a light aircraft early in their training programme to demonstrate the basic principles of flight and the effects of aircraft control systems. They value this part of the programme

greatly. Learners use a digital camera during the flight to photograph the aircraft interior and local points of interest, including their homes, for inclusion in their key skills portfolios.

55. Learners develop good levels of practical skills during their on-the-job training. At an early stage in the programme learners work alongside experienced fitters and technicians in the Royal Navy aircraft maintenance group hangars on Lynx and Sea King rotary-wing aircraft or with the Sea Harrier squadron. Learners are given comprehensive task books which are step-by-step vocational training guides listing the generic tasks carried out on all aircraft and the specific tasks for each aircraft type. These books provide excellent guidance and evidence routes for learners. Learners are introduced to a wide range of engineering activities which, because of the exacting and high standards that prevail in aircraft engineering, they have to complete with high skill levels and attention to detail. Learners have a set programme of more than 30 aircraft engineering background knowledge modules to complete that require both off-the-job instruction and practical experience in the engineering workshops or maintenance hangars. Learners are fully involved in the complete strip-down of aircraft, cleaning parts and areas, examination and replacement of components and the rebuild of the aircraft. Finally learners carry out work on testing all the aircraft systems, ground runs of engines and preparation for test flights. This process is very effective in linking all phases of the training programme. Learners comment on the sense of responsibility and achievement they feel working on aircraft that have been and will be used operationally in the UK, on warships and overseas.

56. Assessment and internal verification are satisfactory. The training centre is an approved centre for the assessment of engineering NVQs. Observation is used extensively for assessing learners. All of the centre's staff hold assessors' qualifications and Serco has a further 13 qualified assessors in its workforce who are available throughout the working areas. Assessors and internal verifiers meet regularly and have clear instructions and procedures for their responsibilities. A wide range of other assessment methods are used to augment direct observations, including written assignments and portfolios of evidence often supplemented by audio tapes and digital photographs. Learners' progress is monitored effectively by written end-of-module examinations and individual questioning. Assessment is prompt and effective and learners are quickly informed of their progress. In addition to the end-of-module progress reviews, which take place regularly throughout the programme, learners are given formal quarterly reviews. The quarterly training reviews are comprehensive and give learners satisfactory guidance on their progress and achievement, the content of their work experience and targets for completion. When an individual learner would benefit from reviews at shorter intervals the programme is adjusted to the learner's need. Supervisors contribute to learners' reviews by completing regular reports on the learners in their work areas. Instructors are well informed on learners' progress because of the close proximity of the maintenance hangars and workshops to the training centre. Instructors and learners are in daily contact throughout most of the on-the-job training phase.

57. Learners receive good learning and pastoral support throughout their training. The good ratio of instructors to learners provides learners with regular and unrestricted access to advice and guidance on all aspects of their training. Each learner has an individual

personal mentor/tutor from the training department. Line supervisors provide additional mentoring and support in the workplace. They are enthusiastic about their role as mentors to learners in the workplace and they take an active and effective interest in the completion of the module task books by their assigned learners. There is frequent contact between the instructors, workplace supervisors and learners. Senior management strongly supports the apprenticeship programme and values its contribution to the skills base of the company. Learners have the opportunity to progress through the company after qualifying as skilled fitters or technicians, with a career structure leading to supervisory and management status.

58. Serco pays careful attention to the health and safety of learners, particularly in the context of aircraft maintenance and operations. Nominated employees are trained as health and safety wardens in the workplace. They carry out six-monthly inspections of all of the company's departments, supported by the Royal Navy which audits Serco's health and safety arrangements annually. Activities such as induction and background knowledge training emphasise the importance of health and safety. Instructors carry out health and safety training for employees in other parts of the company. Learners have a clear understanding of health and safety.

Leadership and management

59. Senior management has a clear strategy and well-identified priorities for the advanced apprenticeship programme. Management has strongly supported the programme and provided good levels of training resources and sufficient well-qualified and experienced staff. The arrangements for the leadership and day-to-day management of the programme are satisfactory. Training staff are enthusiastic and very supportive of the learners. Communications between training staff and workplace supervisors are good and contribute to the value of the on-the-job training. Management recognises that the first intake of apprentices will complete their framework after its planned end date, having experienced a delay in starting their technical certificate courses. The arrangements for assessment and internal verification are satisfactory.