



TRAINING STANDARDS COUNCIL

INSPECTION REPORT MARCH 2000

# BAE SYSTEMS

Preston and Brough

## SUMMARY

British Aerospace Systems offers outstanding engineering training where apprentices have placements working on modern jet-fighter aeroplanes with state-of-the-art technology. They achieve skills levels above the occupational norms and produce outstanding portfolios. Trainees' achievement and retention rates are excellent. Business administration training is good, and has varied and good-quality work placements. All trainees have good opportunities to undertake extra training. Trainees have a low level of understanding of equal opportunity and staff are not given specific training. Equality of opportunity is, however, satisfactory overall with a good intranet site on the subject and a rigorous complaints procedure. After a robust recruitment process, trainee support is good. Engineering has a comprehensive induction process and there are regular opportunities for trainees to discuss their progress. There is no accreditation of prior learning in engineering. The management of training is good. Quality assurance is effective with excellent feedback from employers, although trainees' internal verification is poor and the self-assessment process is underdeveloped.

### GRADES

OCCUPATIONAL AREAS	GRADE
Engineering	1
Business administration	2

GENERIC AREAS	GRADE
Equal opportunities	3
Trainee support	2
Management of training	2
Quality assurance	3

### KEY STRENGTHS

- ◆ high rates of achievement and retention
- ◆ wide range of good-quality and interesting work placements
- ◆ good opportunities for further study and progression
- ◆ outstanding portfolios in engineering
- ◆ comprehensive induction to engineering
- ◆ strong personal-development scheme for all
- ◆ effective strategic lead and target setting for training

### KEY WEAKNESSES

- ◆ inconsistent management of subcontractors
- ◆ poor internal verification
- ◆ missed opportunities for assessment by direct observation
- ◆ no accreditation of prior learning
- ◆ low equal opportunities awareness
- ◆ underdeveloped self-assessment process

## INTRODUCTION

1. British Aerospace Systems (BAE SYSTEMS) is an important manufacturing exporter and aerospace-defence company both nationally and internationally. The company is a centre of excellence for the development of military aircraft and now designs and manufactures jet-fighter aircraft such as the Hawk and Eurofighter Typhoon. It has over 90,000 employees. All but about 10 per cent of sales are exported to over 70 countries.

2. There are five training centres co-ordinated by a manager, with two offering government-funded work-based training to 314 modern apprentices in engineering and 39 modern apprentices in business administration. The Preston Training Centre has contracts with Lancashire Area West Training and Enterprise Council (LAWTEC), and at the Brough Training Centre, near Hull, the contracts are with Humberside Training and Enterprise Council (TEC). Apprentices work towards national vocational qualifications (NVQ) at level 3 during their training period. Trainees receive additional off-the-job training and education by locally subcontracted further education colleges.

3. In Preston, on-the-job training is carried out at Warton Aerodrome where final assembly and system-testing work is based, and at the Samlesbury site in Preston where new materials are developed and machining and assembly takes place. On-the-job training at Brough is at the factory which houses the organisation's structural-test facilities.

4. North and western Lancashire has a working population of 43,000. It is relatively prosperous and has an unemployment rate of 4.2 per cent. Manufacturing accounts for 18 per cent of jobs, while public administration, education and health make up 31 per cent. In 1999, the proportion of school leavers achieving five or more general certificates of education (GCSEs) at grade C or above was at 47.8 per cent, compared with the national average at 47.9 per cent. In 1999, 17 per cent of school leavers in Preston were members of minority ethnic groups.

5. Humberside has a working population of 409,000 with unemployment rates above the national average for March of 3.9 per cent. The main areas of employment are manufacturing, followed closely by the service industries including transport, communications, banking, finance, distribution and hotels. In 1999, the proportion of school leavers achieving five or more general certificates of education (GCSEs) at grade C or above was 47 per cent, compared with the national average of 47.9 per cent. Minority ethnic groups constitute only 1.2 per cent of the total population of Humberside.

## INSPECTION FINDINGS

6. BAE SYSTEMS produced its first self-assessment report in January 2000. The staff were briefed on the process by TEC staff, an opinion survey was conducted across all aspects of the business and included a questionnaire for team leaders, trainer/assessors and trainees. A consultancy firm was contracted to give advice and conduct survey work. A draft was shared with the TEC and its comment invited. The report contained introductory paragraphs which gave inspectors a clear understanding of the provision. Some judgements were attributed to the wrong generic area and many of the strengths and weaknesses listed were not confirmed by the inspectors.

7. Five inspectors spent a total of 20 days with BAE SYSTEMS. They conducted 41 staff interviews, including workplace supervisors, managers, trainers and assessors and interviewed 72 trainees. They observed assessments and reviews, visited 24 work placements and the subcontracted colleges. Inspectors reviewed trainees' files, portfolios, management information and promotional materials.

### OCCUPATIONAL AREAS

#### Engineering

#### Grade 1

8. There are 314 young people in engineering training over two sites with this company. At the Preston centre, there are 193 and at Brough, there are 121. The table below shows the breakdown of numbers of trainees and their programmes.

9. In the first year, all apprentices undertake 30 weeks of off-the-job training to acquire basic engineering skills, followed by a further 20 weeks where the off-the-job training is tailored specifically to the needs of the aerospace industry. Throughout the apprenticeship, trainees attend a subcontracted college one day a week, where they work towards qualifications to provide the theoretical knowledge they need. Some trainees progress to degree-level qualifications. On completion of the first year, trainees spend time in each operational section of the industry where they work under the supervision of a team leader. They work on modern jet-fighter aircraft. Evidence of competence towards the NVQ at level 3 is collected when in these sections. Most of the staff involved with work-based training at work have assessor and training qualifications. Occupationally competent training co-ordinators have responsibility for monitoring trainees' progress towards the target qualification and for trainees' personal welfare. Twelve-weekly reviews take place in the training centre, workplace or college. On completion of the apprenticeship, trainees apply for employment in one of the sections, where they negotiate with their manager if they wish to study for further or higher education qualifications. The self-assessment report failed to identify many of the strengths and weaknesses found by inspectors. The grade awarded by inspectors is higher than that given by BAE SYSTEMS.

This table shows the breakdown of modern apprentices and their programmes

Preston		Brough	
	MA		MA
Mechanical	22	Mechanical Fitters	64
Electrical	20	Technicians	27
Tool making	15	Sheet metal work	4
Sheet metal work	12	Electricians	2
Machinists	3	Basic engineering	24
Technicians	61		
Basic engineering	60		

**STRENGTHS**

- ◆ high levels of retention and achievement
- ◆ good opportunities for further study and progression
- ◆ trainees’ portfolios outstanding
- ◆ wide range of good-quality work placements
- ◆ skills levels achieved exceed normal occupational standards
- ◆ good knowledge of NVQ process among supervisors and trainees
- ◆ frequent assessment and good feedback

**WEAKNESSES**

- ◆ some missed opportunities for assessment by direct observation
- ◆ little co-ordination of on- and off-the-job training

**GOOD PRACTICE**

*One new placement that has proved especially useful in extending experience is with the estates department, where the building maintenance and installation of production machinery is arranged and co-ordinated. The section's managers made a proposal to the training department detailing the way work in the section complements the engineering qualification. This initiative allows trainees to accumulate valuable workplace evidence in report writing, supervision of staff and contract management.*

10. Nearly all the young people who embark on a training programme with BAE SYSTEMS achieve their qualification and gain employment in the occupational area of their choice. At the two sites over the past three years, 97 and 94 per cent of those apprentices starting training have completed the qualification and secured employment. Considerable effort is made to retain any trainees who experience difficulties in order that they remain in training. Trainees who wish to change career direction are able to discuss their aspirations with training co-ordinators who understand the function of the business and relate well to the trainees.

11. There are excellent opportunities for trainees to continue studying when they complete the apprenticeship. Many past trainees have gained degrees and some now hold senior positions within the company. One technician apprentice has

travelled overseas on several occasions, assisting in negotiations with customers of the company. Potential technicians are selected at the end of the first year when trainees understand the role more clearly and the company has had time to evaluate each trainee's potential. Technicians study for national, higher national or degree qualifications alongside their NVQ at level 3. Several additional qualifications are available to trainees throughout the programme. Trainees are included in in-house staff development and may select from a portfolio of development courses that include information technology, languages and report writing. Over a third of the trainees at Preston are registered with the learning-resources centre for additional open learning qualifications.

12. The content of trainees' portfolios is outstanding. Their presentation is immaculate. All portfolios follow a common format, but the evidence contained within them is unique to the experience of the individual trainee. Portfolios contain diagrams and reports from the shop floor related directly to the performance criteria. Computer readouts and floppy discs supplement the written evidence. Key skills evidence is produced from a number of sources. Participation in residential outdoor courses and charity work is used to show evidence of teamwork and communication skills. The initiative known as Charity Challenge is used to develop the key skills of individuals and groups. Within each business area, trainees are encouraged to plan and take part in a variety of fundraising activities. To encourage this initiative, the company matches the funds that are raised. Interesting and detailed records of these activities are methodically cross-referenced to key skills criteria in trainees' portfolios. Trainees and supervisors also collect evidence of key skills from on-the-job training. An apprentice was involved in testing the engine and afterburner on a Tornado jet-fighter plane. He gained occupational competence and recognised that working with the engine manufacturer's team provided good key skills evidence in communications.

13. Twelve-week placements are selected with the needs of both the trainee and the business in mind. Before starting on a placement, trainees are given general objectives to achieve. These include researching the function of that section in relation to the company values, and staff responsibilities within that section. Specific engineering objectives are negotiated with team leaders at induction to the placement. Progress throughout the placement is monitored and objectives are regularly reviewed.

14. One of the less conventional placements for aerospace trainees is within estate management. The section staff put together a proposal stating exactly what they could offer in relation to the engineering qualification. Report writing, supervising staff and costing are sometimes difficult for trainees to achieve in the more conventional sections, but are easily attainable with the estates department. This also allows trainees to gain an appreciation of the competencies used in other areas of the business. Trainees enjoy their work in this section and many apply for employment there on completion of their training. Trainees may be relocated if progress is slow, owing to production requirements.

15. The standards set by the aerospace industry exceed those required by the

NVQ framework. High standards are set for trainees at the outset and progress is monitored with precision. The level of skills attained on foundation courses play a significant part in allowing trainees to establish credibility with experienced fitters and technicians and to perform to the industry's high standards as soon as they begin to work in a section. The resources for trainees in foundation training are excellent.

16. Supervisors and trainees have good knowledge of the NVQ process. Trainees are aware of, and can identify, the tasks they are undertaking which have specific relevance to NVQ units and elements. Trainees negotiate detailed assessment plans with the training co-ordinators. Assessment is frequent, typically at least monthly, and trainees are aware of their previous achievements and exactly what they need to do to complete the qualification. Evidence of competence that naturally occurs during work is frequently produced. Comprehensive feedback is given to trainees on their assessment performance and detailed records are kept in trainees' files.

#### **GOOD PRACTICE**

*In order to develop key skills for all apprentices, a 'charity challenge' encourages groups of trainees to organise a fund raising event. This includes convening review meetings, preparing reports for management and providing briefings and lectures for senior management.*

17. Much of the assessment is undertaken using witness testimonies, records of trainees' activity, and reports. These records are accurately maintained and smartly presented. Assessment is rigorous. Assessment by direct observation of trainees' performance is limited, however, and opportunities to do this are missed.

18. There is insufficient co-ordination of the on- and off-the-job elements of the training. Workplace supervisors, although occupationally highly competent, are not always aware of the tasks trainees undertake during their college work. They miss the opportunity to structure the tasks in the workplace to reinforce those undertaken at college.

## **Business administration**

## **Grade 2**

19. The company has 39 modern apprentices in business administration. There are 24 second-year apprentices and 13 in their first year based in Warton and two first-year trainees based in Brough. All trainees work toward NVQs at level 3 and the European computer driving licence which is achieved during the first three months. Trainees have access to a wide range of placements, which are rotated on a three-monthly basis in order to broaden their experience. At Warton, training and assessment are provided by a subcontracted further education college on a day-release basis with further half days for key skills development. Apprentices at Brough attend a local further education college on day release. All the apprentices have access to the learning-development centre which is equipped to offer information technology courses across a wide range of subjects linked to organisational requirements. Inspectors agreed with three of the strengths in the self-assessment report and a further strength was identified during the inspection process. Inspectors agreed with one weakness and a further weakness was identified. The grade awarded is the same as that given by the company.

### *STRENGTHS*

- ◆ high levels of trainees' achievement and retention
- ◆ good opportunities for progression
- ◆ additional training opportunities
- ◆ wide range of good-quality placements

### *WEAKNESSES*

- ◆ no assessment in the workplace
- ◆ fragmented review process

20. All those who have completed the programme over the last five years have achieved their qualification. During that time, 137 trainees were recruited and there have only been seven early leavers without qualifications (5 per cent). All 26 of the trainees due to complete the programme in March 2000 have been offered permanent employment with the company. Trainees meet with the business-training line manager on a weekly basis to discuss all aspects of their apprenticeship, including placement and job opportunities.

21. Apprentices have excellent opportunities to progress to further qualifications. They are encouraged by the training department and their departmental managers to consider the options available to them. Four of the apprentices due to complete their programmes have been accepted onto the 'European Assistants' programme on a full-time course at a local university which leads to a diploma in European business administration. Four apprentices have recently spent five weeks on placement in Germany before embarking on the programme. When they have completed the programme they will take up employment within the Eurofighter Typhoon project. An apprentice in the business-management section of the Nimrod project is to undertake a higher national certificate (HNC) in business management. Portfolios are of a good standard. They are well presented and individual. Apprentices take pride in them.

22. The company places a strong emphasis on the training experience for the trainees. At the start of each placement, the placement supervisor and the trainee identify a set of objectives linked to the NVQ requirements and the needs of the department. In addition to the day-release arrangements, they are able to access courses through the learning development centre which are arranged through their placement supervisors and fitted into the working day. Trainees with language skills are able to apply for the opportunity to participate in exchange programmes in Germany and the 'European Assistants' programme. Evidence for key skills portfolios is obtained from several sources, including a residential outdoor course, through the organisation of careers events and from the work placements.

23. Apprentices' assessment takes place during day release. There is no

assessment at work, although some of the supervisors are qualified assessors.

24. Trainees' reviews are undertaken by workplace supervisors at the end of each placement. The manager who co-ordinates this process is provided with a monthly progress report by the college tutor. These reviews are based on the objectives set at the start of the placement and are not linked to NVQ achievement. There is no satisfactory or regular review system reflecting overall progress at work together with NVQ achievement.

## GENERIC AREAS

### Equal opportunities

### Grade 3

25. BAE SYSTEMS has an equal opportunities policy and procedures which meet contractual and legal requirements and are displayed on the company's intranet system. There is a designated manager who is responsible for equal opportunities at a strategic level. Trainees have equal opportunities as part of their induction programme and it is referred to in the trainees' handbook. The company is involved in many aspects of work in local schools and with community groups to address the shortfalls in the recruitment of minority ethnic groups and people with disabilities. At the time of inspection, there were no trainees with disabilities. At Preston, only 3.5 per cent of trainees were from minority ethnic communities compared with a local population of 10 per cent. At Brough, there were no trainees from a minority ethnic community but the area has few minority ethnic people. Current trainees participate in careers fairs and initiatives such as 'engineering explained' to provide school children with a positive view of the company and its career opportunities. One strength and one weakness identified in the self-assessment report were agreed on during the inspection process and further strengths and weaknesses were identified. The grade awarded is lower than that given by the company.

#### *STRENGTHS*

- ◆ comprehensive equal opportunity intranet site
- ◆ strong company culture and values
- ◆ rigorous complaints procedure
- ◆ evaluation of recruitment tests to avoid bias

#### *WEAKNESSES*

- ◆ trainees have low awareness of equal opportunities issues
- ◆ no training in equal opportunities for workplace supervisors
- ◆ equal opportunities not promoted in marketing and recruitment literature
- ◆ data not evaluated

26. All trainees and staff have access to the comprehensive and informative equal

opportunities information on the company's intranet. It contains information on policies and procedures for all forms of protection against discrimination. The company appointed an equal opportunities manager a year ago. It is a member of a local committee which considers the recruitment of trainees from minority communities. Attendance at this committee has been sporadic. The company goes into schools which have a significant number of pupils from ethnic minorities. These efforts are beginning to improve the representation of trainees from minority backgrounds, which has doubled for each of the last two years.

27. There is a strong culture of equal opportunities throughout the organisation which is one where discrimination is not tolerated. Trainees have positive role models in their supervisors and trainers who do not permit any form of discrimination or harassment. Volunteer members of staff, including union representatives, have been trained in harassment issues to provide counselling for any member of staff. Posters are displayed throughout the sites with details of their names and contact numbers. From the first day of their apprenticeships, trainees have the same terms and conditions as all other employees and are subject to the same regulations. There is access to most of the sites for those who use wheelchairs, although some of the training centre's lecture rooms are upstairs.

28. On the rare occasions when complaints have been made, they have been dealt with promptly and with rigour. Detailed records of the complaints are kept.

29. The company commissioned a report from an independent firm in order to ensure that the recruitment process is fair. The aptitude tests trainees are required to complete have been analysed for any kind of bias. The consultants found that trainees were not disadvantaged in terms of race or gender. All applicants are required to undertake the tests before they are selected for interview.

30. Trainees have a low awareness of equal opportunities. Although it is covered during induction, it is not given sufficient emphasis and understanding is not checked. The trainees' handbook contains a reference to the policy but it is not given any prominence and trainees struggle to recall any detail. Their understanding is only basic.

31. The supervisors and trainers responsible for trainees at work are not routinely updated on equal opportunities issues. There is no policy to ensure that staff are trained to be aware of their responsibilities. Equal opportunities groups formed from staff and management meet to discuss relevant issues but the ensuing communication networks are not clear.

32. The company produces marketing literature as part of the recruitment campaign. There is no reference to the company's values in terms of equal opportunities or its desire to attract applications from minority ethnic groups or people with disabilities. Similarly, presentation materials have no indication that the company is working towards a policy of social inclusion.

33. No overarching framework exists for the routine monitoring of equal

opportunities and the data gathered are not used to address the shortfalls. It has been identified that recruitment has failed to provide access for people with disabilities and there is under-representation of minority ethnic groups, but to date the actions taken to rectify this have not been effective. The recently appointed equal opportunities manager is developing a strategy for the company but, as yet, there is little impact on the training.

## Trainee support

## Grade 2

34. The trainee-recruitment and marketing strategy is carried out in line with the company's long-term business plan. Applications for the modern apprenticeship programmes are primarily received from schools within the local communities. The company is involved in career conventions and employment workshops within the schools and community centres on a regular basis. There are three stages to the selection and assessment process. Successful applicants are inducted to the company and apprenticeship programmes over a number of consecutive days. Support is provided throughout the apprenticeship programmes by training and workplace staff. There are opportunities to achieve additional qualifications through attendance at colleges or the company's own training-resource centres. Independent pastoral support is offered by local trade-union representatives and qualified counsellors within business departments. Staff, college representatives, trainees, placement supervisors and, for engineering, union representatives are involved in the review process. Assessments in engineering are planned within the workplace and training centres throughout the training programme. For engineering, attendance at the training-centre workshops for additional support training is carried out as part of a training-recovery plan. Administration trainees are recruited onto a fixed length 18-month apprenticeship. They are reviewed by workplace supervisors against objectives set at the start of each placement. On completion of the apprenticeship, they are able to access a wide range of additional qualifications and are helped to decide on appropriate courses by work supervisors. The self-assessment report listed strengths and weaknesses which were confirmed during the inspection. Inspectors identified additional strengths and weaknesses, and awarded the same grade as given in the self-assessment report.

### GOOD PRACTICE

Any trainee who is considered behind with their NVQ portfolio is given one or two days off the placement to return to the training centre to develop their portfolio with advice from centre staff.

### GOOD PRACTICE

A trainee in the public relations and communications department was offered the opportunity to undertake a project based in Farnborough. In order to ensure that he did not miss day release, he commuted in the company jet, flying back for his day-release day and returning to Farnborough for the

### STRENGTHS

- ◆ good recruitment and marketing strategies
- ◆ comprehensive induction to engineering programmes
- ◆ regular opportunities to discuss progress
- ◆ trade unions actively involved in trainees' development

### WEAKNESSES

- ◆ weak initial assessment of key skills
- ◆ no accreditation of prior learning

35. Recruitment and marketing strategies are effective. The close links developed with schools are supplemented by the company offering basic engineering-awareness programmes within their training centre. The 'young engineer' scheme at Preston and the 'Saturday Club' at Brough offer prospective applicants the opportunity to experience typical workplace operations. Practical applications in milling, turning, basic fitting skills and sheet metalwork are experienced by interested schoolchildren. In addition, regular open days at the training centres encourage young people to visit with their families to learn about the types of employment and training opportunities available. Administration trainees who do not have information technology skills from school are able to attend the learning-resource centre to gain experience in the basic packages before embarking on the full programme.

36. In engineering, an effective and comprehensive three-week-long induction programme ensures that trainees fully understand their employment rights and training programmes. Health and safety in particular are covered in depth. Grievance and discipline procedures and pay and support agencies within the company are all explained. There is a well-presented induction pack given to each trainee for future reference. Administration trainees have four half-day induction sessions during the first week. After the first day they are introduced to their first placement supervisor and undergo induction in the workplace. They start their first three months' placement at the end of the first week. They attend day-release workshops held on site by a local college and, in addition, have a further half day a week to complete some key skills elements. They use the learning resource centre for further training.

37. Engineering trainees attend the training centres for the first-year foundation programme and are well supported by training-centre staff throughout this period. Training is given in the workplace from the second year of the programmes. Progress reviews are carried out on a regular basis. During the first-year foundation programmes, they are carried out every four weeks. During the remainder of the programme and work placements, they occur on completion of every placement and at defined review periods identified within trainees' personal development plans. Administration trainees have a formal weekly meeting with the business-training line manager at which they are able to discuss all aspects of the programme. They used this forum to organise a quiz night as a fundraising event. Trainees have taken full responsibility for the choice of venue and expect to attract in the region of 200 people from colleagues and families of trainees.

38. At the outset trainees' individual training plans do not reflect individuals' needs. For example, each trainee is given the same basic skills development regardless of their ability. The training plans become individual once placement activities begin. Additional personal development is offered in the form of vocational training provided at either college or the resource centres on site. The company supports this activity and provides funding towards any activity staff may wish to undertake. Further key skills development is achieved when the trainees attend a residential

outdoor-activity centre for one week. The training offered and experiences gained are directly referenced to the key skills criteria by the centre staff. Trainees maintain key skills booklets during this period. Weaknesses identified in performance and skills training result in the preparation of a recovery plan drawn up between the training co-ordinators and trainees. Trainees may attend additional workshop activities or are given time away from the workplace to prepare evidence for their portfolio. Recovery plans detail actions and a timescale for improvement.

39. Trade unions take an active part in the trainees' development. They attend the induction programmes and ensure trainees are aware of employment opportunities, as well as their rights and responsibilities. They regularly hold surgeries for trainees within the centres. Trainees may discuss any concerns they may have regarding their training, work activity or matters of a personal nature. Union representatives ensure clarification and guidance are offered independently of the company's management and training staff. During grievance and disciplinary procedures, union representatives support trainees. Union representatives are actively involved in management and meetings that review trainees' progress. Where weaknesses are identified for individual trainees, the union representatives advise on developing recovery plans.

40. Trainees are made aware of their progress on completion of each placement and workplace supervisors and training co-ordinators carry out formal reviews every three months. Trainees within a particular business area are also encouraged to review their own progress. Additional support is given by the company in the form of subsidised transport to remote placements, and administrative support is given for trainees seeking shared accommodation in the local communities.

**POOR PRACTICE**

*A trainee with good A levels in mathematics and science had to complete ordinary national certificate before moving on to higher national certificate. Another with a certificated engineering foundation qualification had to repeat all the foundation training.*

41. After initial applications are received, selected candidates are invited to attend the centres for numeracy and psychometric testing. Candidates who achieve successful results are invited for further practical aptitude testing and formal interview. Although the initial selection process is well structured there is insufficient assessment of trainees' individual key skills at this stage, particularly for literacy levels. Some apprentices have not had their literacy weakness identified until some way into the programme. Staff are not always aware, particularly within placements, of the support facilities that the company or colleges can offer.

42. There is no accreditation of prior learning. Some trainees are frustrated at the inflexibility of the further education programmes. All trainees, regardless of their prior qualifications or experience, are placed on the same programme at the same level.

**Management of training**

**Grade 2**

43. Training at BAE SYSTEMS is within the human resources department headed by a director. The head of education and strategic liaison manages the engineering skills manager whose department is responsible for the engineering training, and the

business training line manager. Government-funded engineering training is based at two centres, in Preston and Brough, each headed by a centre manager. At the Preston centre, there are 21 staff, including 14 trainer/assessors who are either qualified or working towards assessor qualifications. Three team leaders are directly responsible for the trainees. Two of the team leaders are qualified internal verifiers. Detailed company procedures are held on an intranet and outline the routines for recruitment, training and staff appraisal and development. A specific procedure details the modern apprenticeship. Off-the-job training is provided within the centre by a subcontracted provider. At the Brough centre, there are nine staff, including seven trainer/assessors who are qualified assessors. Three training co-ordinators are responsible for the trainees. Two of the staff are qualified internal verifiers. Off-the-job training is provided within the centre by a subcontracted local further education college. Business administration trainees are managed at Warton Aerodrome by the business-training line manager. At Brough, there is one co-ordinator/trainer/assessor. At both centres, off-the-job training is provided on-site by a subcontracted college of further education, and internal verification is also subcontracted. The company has held Investors in People accreditation since March 1997. The self-assessment report identified one strength, and one weakness that was more appropriate to trainee support. Two other strengths were agreed on but some were no more than would be expected as normal practice. Inspectors identified further strengths and weaknesses. The same grade was awarded as the self-assessed grade.

#### *STRENGTHS*

- ◆ good management of training
- ◆ staff's wide understanding of company values
- ◆ good staff development and appraisal
- ◆ effective strategic lead and target-setting for training

#### *WEAKNESSES*

- ◆ inconsistent supervision of subcontract

44. The management of the training process is good and is guided by effective policies and procedures, which detail the routes and paths to achieving the apprenticeships. Management of information is good and the large numbers of trainees are monitored on well-designed spreadsheets. Planning of apprentices' movements is good within the foundation training and on work placements. This ensures that the flow of trainees is smooth and matched with appropriate resources at the times needed to meet NVQ progression. There is no waiting or dead time. Achievement and retention data are readily available. Recruitment, induction and deployment of staff are good following comprehensive procedures. Staff have a good understanding of their roles and how they relate to each other. They are able to maintain a firm control and appreciation of the training being given, quickly

identifying and resolving problems. This knowledge helps foster the mature relationship between trainees and staff which aids the administration and control of training. Communication within the training departments is clear and staff and trainees feel free to make comments about the training. There are frequent meetings, some of which include trainees, which constantly review the training. The meetings are backed up by clear minutes and actions are pursued.

45. The company has established its core values, objectives and targets. A copy of the company's value plan is given to each employee, including trainees. From this plan, departmental plans are used to create plans at various levels, ultimately leading to a personal-development plan for each individual. This process includes trainees who have an impressive understanding of the system. They are aware of the company's core values, have knowledge of the value plan of the department they are placed in, and can identify how the individual objectives from their own personal development plans fit into the scheme.

46. Appraisal is on an annual cycle and regularly carried out. Each individual is assessed against a set of criteria. The assessment is judgmental and comprehensive. The objectives set are realistic, match the person's role and are closely monitored and reviewed throughout the year. In the case of trainers in direct contact with apprentices, the training offered is relevant and courses undertaken include assessor qualifications, interview techniques, counselling, appraising, language training (used to arrange exchange visits), and management skills. There is good technology training for engineering staff. For example, long-term trainers in the foundation area are being trained at the work placements to learn about the Eurofighter technology. At a general level, the company financially supports more general opportunities for study.

47. There is a corporate strategy for the development of young people, which includes the training centres and apprenticeship programme. An operational planning group consisting of resource managers takes advice from the business-unit managers to project future workload in terms of staff hours needed. From this and applying wastage rates and years of experience, the group is able to determine the target number of trainees needed to meet anticipated future demand.

48. Supervision of the subcontracted further education suppliers is inconsistent. At Brough, in engineering it is weak. There is a close working relationship between the company and this provider but there is no formal monitoring of the effectiveness of training. The company does not regularly observe training, call for copies of external verifiers' reports or feedback evaluations carried out. At Preston, the subcontracted training for engineering is closely monitored but only informally. Lecture rooms are in the same corridor as training staff's offices who meet lecturers on a daily basis. Company staff have the opportunity to meet trainees as they leave lectures. There are monthly meetings between lecturers, trainers and managers, and the company member of staff who is responsible for liaison has an office next to one allocated to the further education staff. In this latter office the registers, reports and correspondence relating to trainees' progress on college courses are kept. A good college handbook is produced by the company in

conjunction with the college. In business administration, there is satisfactory supervision of the subcontracted off-the-job training with weekly meetings. However, the company does not regularly observe training, call for copies of external verifiers' reports or feedback evaluations.

### Quality assurance

### Grade 3

49. BAE SYSTEMS has a comprehensive quality assurance system, which is driven by the business need to ensure that its aerospace products meet the highest standards of design and manufacture. The 'young people resourcing and development process improvement group' drives the quality assurance programme for work-based training at a strategic level. This committee includes representatives from business units, trainers and human resources. Training centre managers take their policy from this group. Centre managers hold a series of regular meetings with trainers, trade-union representatives, assessors, further education providers and co-ordinators where the quality and results of training are evaluated and action planned. Trainees' views are formally sought at the end of each placement and annually in a questionnaire which is evaluated by an independent subcontractor. Informally, views are sought at assessment reviews and at weekly meetings with trade-union representatives. The BAE SYSTEMS quality assurance system meets the requirements of a number of external quality standards including ISO 9000, and business excellence awards. The company also meets the requirements of the awarding bodies. Inspectors agreed with one strength and one weakness identified in the self-assessment process. Inspectors identified others and agreed with the grade given in the self-assessment report.

#### *STRENGTHS*

- ◆ excellent employers and trainees' feedback system
- ◆ strategic-level evaluation of the quality of training
- ◆ effective informal quality assurance

#### *WEAKNESSES*

- ◆ training quality assurance procedures at Preston not formally followed
- ◆ no observation of training
- ◆ poor internal verification
- ◆ underdeveloped self-assessment process

50. Staff have a sophisticated understanding of quality assurance. They give their full co-operation to achieving it. There is a culture of openness and discipline that derives from an acceptance of the fundamental importance of air safety. Individuals are confident to raise and deal with shortcomings without fear of reprisal. This ready acceptance that faults occur and must be dealt with contributes to a strong

learning environment. There is a commitment among staff to trainees which ensures that they are provided with a good and steadily improving service. For military aircraft manufacture, the company has jointly agreed comprehensive quality assurance procedures with the Ministry of Defence. For civil aircraft, there are external quality assurance procedures such as the Civil Aviation Authority's airworthiness requirements and the Joint Aviation Regulations.

51. There is effective informal quality assurance of the training process. Feedback from trainees and employers is received independently through reports and questionnaires. These reports are rigorously implemented and they are constructively completed by trainees. Evaluation of the reports is discussed at the training department's regular monthly meeting. This information drives improvement to the training process which contributes to the sustained high levels of achievement and retention.

52. The business groups direct the training process at a strategic level through the 'young peoples' resourcing and development process improvement group'. The group monitors the results of training and training methods. At a broad level, the quality of training in engineering is also monitored by the business units which form a view of the competencies of those who have just completed their apprenticeships. Training-centre managers are required to implement strategic policy, which includes issues of quality improvement, developed by this group.

53. The training centre's quality assurance procedures are clearly written, but they are not formally followed. However, many have become integrated into the workplace and are now normal practice. Although the procedures for quality assurance of training are used at Brough, some are omitted, and at the Preston site very few are formally used. Training staff, who have in most cases been directly responsible for the creation of the procedures, do not feel the need to use them or constantly refer to them on a daily basis. There is no auditing of the use of the procedures. This has not, however, resulted in any identified deterioration to the improvement of quality of the training process.

54. Trainees' competence is constantly monitored by workplace experiences. Any lack of development in trainees' skills is readily identified and rectified. However, formal internal verification procedures are underdeveloped. For engineering, there are not enough internal verifiers to meet the current demand, and they do not meet with assessors. This is a particular problem where apprentices are on placement in the hangars. Where internal verification is taking place, it is based on documentary evidence only, and there is little observation of training. As a consequence, the consistency and quality of assessment is unknown. The awarding body's external verifier has not previously highlighted this to the company. In administration, a local university project manages the programme and provides internal verification. Assessment is subcontracted to a local college. There has been no observation of assessment in the workplace. A system has been introduced to rectify this.

55. The self-assessment report had good introductory paragraphs and gave a clear description of the provision. It contained a good organisational chart. The strengths



and weaknesses, however, were not deeply critical. Many of the strengths were actually now more than should be normal practice. The overall judgements of the report were reasonable and three of the five grades were accurate. The action-planning process was not included in the report and consequently the strengths identified could not be consolidated and the weaknesses have not yet been addressed.