# Avionic Systems Operational Framework



BAE SYSTEMS

### Introduction

We are now well in to the second half of 2002, I personally can't believe how quickly it has gone, so I thought I would take this opportunity to share with you our position so far this year.

At the Roadshows in February the directors and I talked about four main subjects:



In my closing slides I asked you to help us with three key issues:

Firstly, "To Work Together to Solve Problems". I am seeing great evidence of this happening, the new organisation has given us greater flexibility, teamworking and Customer focus. The Man-Machine Interface (MMI) and Vehicle Management Systems (VMS) performance review workshops that have brought together all the relevant disciplines to solve real time, programme issues are beginning to have a very real effect. The PCB Surface Mount Technology 'Loose Component CBIT' is another example where the 'wider team' are solving issues and improving the performance of our business. We need to keep building on these successes.

Secondly, "Helping Our Customers to Win". We are starting to receive recognition from our Customers for the improvements we are striving to achieve in our business. We must focus on delivering quality products, to schedule and cost and to respond to the requests of our Customers in a timely and professional manner.

As an example of this, during the development of the Spearfish programme, the team have embraced the year of the customer and have moved up the supplier league table from 17th to 1st place. This position has been maintained for 6 months.



Another example is the increase in throughput over the last few months in PCB delivery to our other divisions.

Lastly, "Helping Your Customers Win". By this I was referring to the customers we all have within Avionic Systems (AS). Everyday someone is our customer and I am convinced that if we raise the level of service we give to our 'internal' customers, our 'external' customers will see the benefits. Examples of this are working as a team in the recent and previous floods at Rochester and also the way we pull together in Charity Challenge events.

#### **Continuously Improving**

A large part of the Roadshow was devoted to our financial performance under the title "Continuously Improving". Within AS we have a large number of improvement initiatives we are working on, Project Information and Management Metric System (PIMMS), Design for Manufacture (DFM) and the Leading for High Performance Development Programme to name but a few. DFM is also an example of where all facets of the organisation are working together focussing on world class products - "Helping Your Customers Win". It is vital to the survival of our livelihood that we make these improvements work and achieve/realise a return on the investment of our time and money.



## **Our Strategic Intent**

"Our strategic intent is to be the worldwide provider of choice for electronic and avionic systems in the defence and civil markets"

#### TO ACHIEVE OUR STRATEGIC INTENT WE WILL NEED TO:

- Understand, interpret and formulate electronic systems-led solutions which meet our customers' priority requirements
- Deliver innovative, timely and affordable solutions which fulfil the whole lifecycle demands of the users of our products and services
- Provide intra-platform systems and products essential for aiding operator decisions and improving mission and cost effectiveness on military and civil platforms
- Identify and exploit high growth adjacent markets which utilise our core capabilities
- Leverage the global electronic systems capability within BAE SYSTEMS for competitive positioning
- Form value added partnerships which address our capability gaps or provide routes to new markets
- Satisfy our shareholders



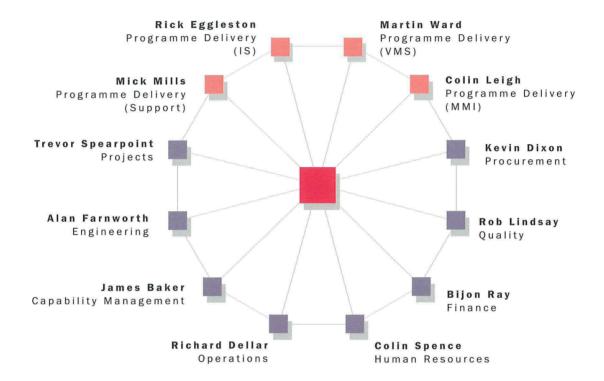
#### **GUIDING PRINCIPLES - TAKING PERSONAL RESPONSIBILITY**

These guiding principles are designed to underpin the rationale of all our activities.

Our activities should:

- Meet the needs of our customers and our performance requirements
- Be aligned with our strategic intent
- Be based on strong, transparent processes
- Be defined by clear accountability and authority
- Support the "One Company" ethos

## **Management Team**



## **Management Accountabilities**

The following section describes the key management accountabilities of each directorate as defined during the Organisational Improvement CBIT of 2001.

#### CAPABILITY MANAGEMENT DIRECTORATE

- Delivery of the Integrated Business Plan
  Programme for AS, through liaison with Business
  Acquisition and Customer Relations (BA&CR), the
  Programme Delivery Groups and functions
- Determine strategic technology plans for each capability area (MMI, VMS, Integrated Systems (IS) and Support), ie the Product Route Map
- Determine Product and Technology route maps for each capability area (MMI, VMS, IS and Support)
- Coordinate AS contribution to business winning with BA&CR
- Lead AS's role in Mergers and Acquisitions,
  Strategic Alliances and Divestment activities

#### PROGRAMME DELIVERY DIRECTORATE

- Delivery and margin of current programmes within a Programme Delivery Group
- Conduct high level project reviews
- Maintain high level customer relationship on current programmes
- Focus of resolution of priority issues within Programme Group
- Represent a capability area to wider BAE SYSTEMS community

#### **ENGINEERING DIRECTORATE**

- Manage the Engineering teams

  delivering the solution for each project within
  the context of the product/project plans
- Manage and review delivery of the engineering solution to spec, cost & schedule within the context of the product/project plans
- A continuously improving management infrastructure, ensuring that lessons learnt and process improvement proactively lead to Continuous Business Improvement

- Develop and realign skills to meet the needs of the business
- Provide engineering teams equipped with world class tools, skills and processes
- Responsibility and ownership of estimates and productivity of the teams against their budget

#### **QUALITY DIRECTORATE**

- Appropriate approvals and accreditations
- Develop AS Quality strategy
- Manage quality resources to the projects
- Develop and realign skills to meet the needs of the business
- Develop and monitor the Business Management
  System
- Responsibility and ownership of estimates and productivity of the teams against their budget

#### PROJECTS DIRECTORATE

- Implementation of Project Management tools and processes, consistently across the whole
- Regular independent review of critical projects.
- Deploy Project Office support staff to allow efficient operating and reporting of the Programme Delivery Groups
- Ensuring consistent risk management, phase review, and project review are applied to all projects across the Division
- Develop and realign skills to meet the needs of the business
- Responsibility and ownership of estimates and productivity of the teams against their budget
- Leadership of the Capability Maturity Model
  Integration (CMMI) initiative



## **Management Accountabilities - continued**

#### **OPERATIONS DIRECTORATE**

- Overall direction of operations functions 
  Manufacturing, Manufacturing Services and

  Procurement
- Provide operations contribution to Programme
  Delivery Groups (VMS, MMI & IS) product and
  profit delivery
- Overall accountability for operations strategy, planning & performance
- Direction of PCB Centre of Excellence in supporting
  Avionics Group
- Responsibility and ownership of estimates and productivity of the teams against their budget
- Focus on customer delivery requirements
- Improve productivity through new process deployment

#### PROCUREMENT DIRECTORATE

- Ownership of all procurement processes across Programme Delivery Groups e.g. subcontract management /supplier strategy
- Supplier and commodity management
- Subcontract management
- Responsibility and ownership of estimates and productivity of the teams against their budget
- e-Auction



#### FINANCE DIRECTORATE

- Provide accurate, timely and relevant management information
- Comply with the group and legal reporting requirements
- Ensure that business decisions and investments are financially sound and funded
- Provide an efficient and effective cash control function
- Produce annual budgets and forecasts

#### **HUMAN RESOURCES**

- Develop and integrate HR policies and plans to support the achievement of AS objectives
- Ensure alignment of AS HR practices and procedures to mandatory BAE SYSTEMS HR policy
- Act as the AS champion for people and organisation issues and initiatives
- Develop and manage best practice processes
  - Attract, select and retain appropriately skilled staff to enable achievement of AS objectives
  - Promote and enable employee development to meet business and individual goals
  - Redeploy and exit staff in a fair, consistent and legally compliant manner
  - Ensure effective staff communication
  - Manage provision of HR information and administrative services



## **Purpose of Other Key Roles**

The following section describes the purpose of key roles as defined during the Organisational Improvement CBIT of 2001.

#### ENGINEERING:

#### **Head of Engineering**

- Ownership of the overall engineering solutions consistent with the Product Plans, providing a consistent approach into the product line regarding reporting and execution of the products
- Improve the co-ordination, control and monitoring of engineering project activity

#### **Engineering Project Manager**

- Ownership of the overall project engineering solution consistent with the Product Plan
- Delivery of the engineering solution to specification, schedule & cost

#### Team Leader

Manage functional discipline team(s) to deliver the engineering solution as part of an associated Integrated Project Team (IPT)

#### **Head of Function**

- Provide managed teams to deliver the engineering solution
- Provide teams armed with leading edge skills, tools & processes
- Provide capacity & skills management to meet the business needs

#### PROGRAMME MANAGEMENT:

#### Head of Programme/ Project Director/ Project Manager

- Manage the IPT to deliver project or group of projects to time, cost and quality
- Maximise margin from project(s)
- Maintain customer relationships at applicable day to day level on project(s)

#### **Project Office Manager**

- Ensure co-ordination and integration of all project and business planning activities within the programme area and a focus for business related process improvement
- Provide the day to day support to the Project

  Managers to allow effective execution of the
  projects
- Provide project performance metrics

#### OPERATIONS:

#### **Operations Manager**

Overall responsibility for Operations contribution to the Programme Delivery Groups (MMI,VMS) including all costs, schedule and quality performance

#### **Production Project Leader**

Manage production of products from a portfolio of projects to time, cost and quality

#### **Subcontract Manager**

Ensure that the requirements set out by the project and bid managers are achieved by the major suppliers

#### CAPABILITY MANAGEMENT:

#### **Product Managers**

Provide a focal point for excellence & knowledge of specific product engineering sets, to meet the Customers current and future requirements



## **Management Framework**

#### PURPOSE OF THE BOARD

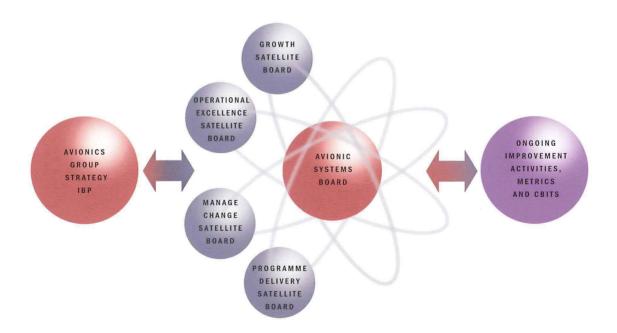
- Provide direction in the deployment of the overall strategy
- Prioritise and allocate new/old objectives to theme boards
- Monitors Balanced Score Card traffic lights

#### PURPOSE OF THE SATELLITE TEAMS

- Provide direction in the deployment of the strategy theme
- Provide the lead implementation on the primary objectives for their theme
- Provide 'checks and balances' for the secondary objectives of their theme, to the other theme boards

The strategic and operational objectives of AS are documented in the AS Strategy Map, based upon balanced business scorecard principles. The balanced scorecard encourages the business to analyse itself in four perspectives - Financial, Customer, both External and Internal, and Learning / Growth. Having applied this tool, AS has a defined set of objectives that it needs to focus on in order to implement its strategy, these form the main detail of the strategy map.

Essentially, a balanced scorecard strategy map provides senior management with a high level view on what needs to be done if the organisation is to deliver its strategy. A strategy map achieves this by graphically tracing the cause and effect relationships between the various strategic objectives contained within the scorecard quadrants. It is operationalised through the measures, targets and initiatives (CBITs) found within a conventional business plan. Each satellite team owns a specific part of AS's strategy map, a key set of objectives and metrics that will collectively implement the AS strategy.



## **Management Framework**

#### OVERVIEW OF THE FOUR SATELLITE TEAMS

The satellite teams meet towards the end of the month, before the main board session. The agenda for the main board is based on the Quarterly Business Review that takes place with Avionics Group, and is segmented into the satellite teams during the morning (as a decision making forum) and is more flexible in the afternoon in order to debate common issues (such as Key Bids, Roadshows, Open Days, etc). There are four satellites to the main board, listed below.

#### OPERATIONAL EXCELLENCE

Focusing on our day-to-day operational activities; on time delivery, resource management and process improvement. Team: Richard Dellar (L), Alan Farnworth, Trevor Spearpoint, Rob Lindsay, Bijon Ray, Kevin Dixon, Mick Mills & Adam Hart (F).

Primary strategic objectives:

- Reduce Cost of Sales
- Optimise Capital Employed
- Supply Chain Management
- Lean Manufacturing
- Product Development
- Resource Management
- Product Support

#### MANAGE CHANGE

Focusing on those activities that drive change in AS, such as our culture, enabling systems (Chairman's Award, Recognising Excellence, etc.) and leadership.

Team: Sue Wood (L), Colin Spence, Bijon Ray, James Baker, Rob Lindsay & Adam Hart (F).

Primary strategic objectives:

- Deliver Sustainable Profitable Growth
- Innovation Throughout
- Process Management Improvement ensuring common processes, reviews and tools are used throughout
- Customer Focus
- Knowledge Sharing
- Leadership
- People Focus
- SHE

#### PROGRAMME DELIVERY

Focusing on the drivers of programme delivery for AS; phase reviews, support systems (PIMMS, Artemis, etc.) and project management skills development.

Team: Trevor Spearpoint (L), Rick Eggleston, Mick Mills, Martin Ward, Colin Leigh, Phil Liddiard, Simon Beastall & Adam Hart (F).

Primary strategic objectives:

- Deliver Customer requirements to cost, time and quality
- Operate leading edge infrastructure & processes, with skilled staff

#### STRATEGIC GROWTH

Focusing on the actions that are required to convert our business winning activities into implementable product and technology developments.

Team: James Baker (L), Bill Milroy, Dave Powell & Adam Hart (F).

Primary strategic objectives:

- Grow selected markets
- Develop 'new' Products
- Credibility
- Partner of Choice
- Integrated Solutions
- Commercial and Technical Innovation
- Deepen relationships
- Marketing & Sales Strategy
- "Product & Capability Portfolio Management"
- Leverage Partnering
- (L) Lead
- (F) Facilitator



