

Landing Gear *Link*



The House Magazine of
Dowty Aerospace Landing Gear, Gloucester
Issue 1, April 1992

Our Goal... World Leader

Welcome to Dowty Aerospace Landing Gear. I want to share with you my vision of the future of our business. Our objective, quite simply, is to be the best - to become the world's leading supplier of landing gear.

It's a tough challenge. To succeed we have to put all our efforts into satisfying our customers - giving them what they want, when they want it, at a price they're prepared to pay.

I have a clear view about how we can achieve our goal - through teamwork and continuous improvement.

To succeed we have to work together as a team. The barriers must come down. The barriers between departments. The barriers between directors, managers, supervisors and employees.

Secondly we must be prepared to welcome change. We must look outside at the best practises in our industry and learn from them. We must adopt an attitude of each day trying to do things better than the day before.

The last 12 months have been a difficult period for all of us. We now need to look forward to the future. In some ways we have a more difficult task than the business units that have moved to a new location. On the other hand we do not have the disruption of moving off this site. We also have the opportunity to redevelop this site if we can produce the results to justify the investment we need.

The road ahead will not be easy. However, I believe we have the right people, organisation, and structure to meet the challenge and achieve our goal.



Andy Stevens - Director & General Manager

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People Policies Outlined

Over the last 18 months a lot of work has been put into deciding the business strategy for DALG - where we want to go and how we intend to get there.

A key part of this has been to develop a human resources policy. What we need to do is create an environment which encourages people to maximise their contribution to our business goals. Why do we want to do this? The reason is simple. It is essential if we are to survive and prosper in the future.

The DALG management team have adopted the following policies to guide us along this path.

- To respect all employees as valuable team members.
- To promote co-operation and teamwork between employees.
- To operate open two-way communications.
- To encourage continuous learning and self-development.
- To provide a high standard of cost effective training.
- To delegate responsibility and authority for meeting business objectives.
- To cut out unnecessary rules and petty restrictions.
- To operate an equitable payment structure based upon job responsibility and individual performance.
- To move towards more common terms and conditions for all employees.
- To promote maximum understanding of the needs of our external and internal customers.
- To have a flat organisation structure with the minimum number of management levels.

Doug Knott, Director of Human Resources, commented, "Putting these policies into practice won't be easy and it won't all happen overnight. Many of us, including myself, will probably have to change the way we have behaved

in the past to successfully implement the new working methods. Nonetheless the future of our business depends on these changes happening quickly. We need everyone's involvement to make sure they are a success".



The Montreal training team winning the Chief Executives Award for Excellence

Here at Gloucester we are one of three companies which make up the worldwide Landing Gear business.

DALG Toronto is based in Ajax, to the east of Toronto, and employs around 300 people. It has extensive design, development, manufacturing and support capabilities for all types and sizes of landing gear systems.

Dowty Aerospace Montreal Landing Gear is situated close to Mirabel International Airport. This manufacturing facility was opened last year to make the main fittings and sliding members for the A330/340. DAM employs around 70 people and this number will

In this section of LINK, we aim to give you an insight into the products we produce and the customers and markets we sell to.

Our Products

We design, develop, manufacture, and support complete landing gear systems ready for installation on aircraft. Every landing gear is unique, individually designed to a specification dependent upon the size and type of aircraft.

Our Customers

We have three levels of external customers each very important to the success of the business.

- **Constructors**
 - Commercial Aircraft
 - Military Aircraft

The constructor is our initial customer who buys equipment from us. Of prime importance to

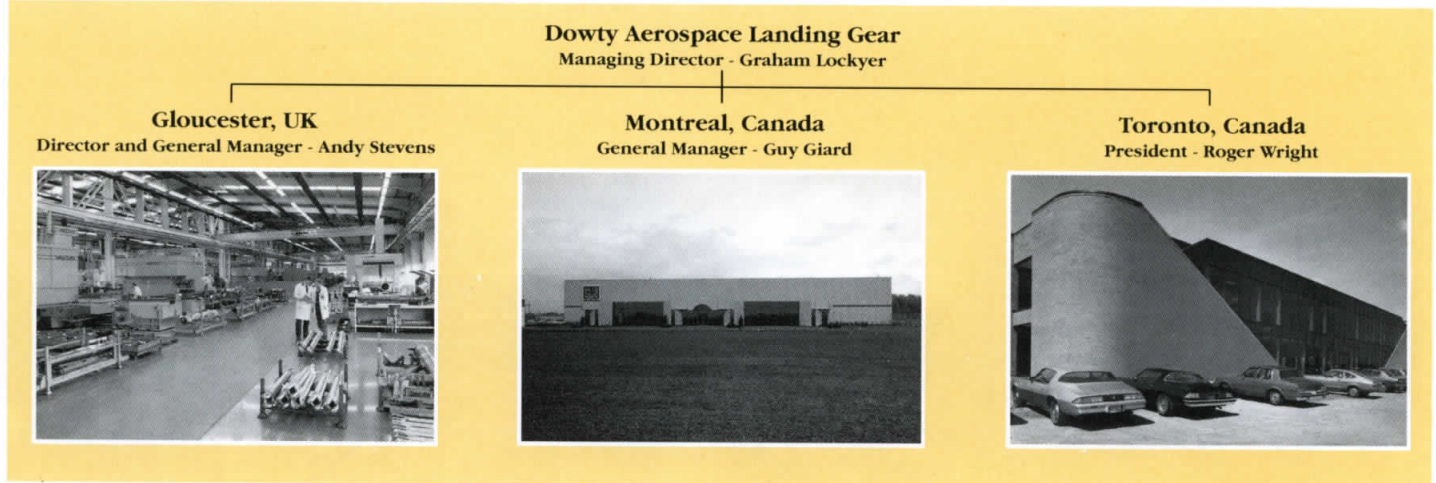
Worldwide Organisation Now In Place

increase as the A330/340 programme builds up to seven aircraft sets a month in 1994.

Being part of a global team focussed on landing gear means

that we are better able to meet the demands of current and potential customers. The fact that we have two companies in Canada improves our prospects of winning business

in North America, the home of some of the world's largest aircraft manufacturers.



Our Products, Customers and Markets

the constructor is the price and weight of the landing gear and its ability to do the job required of it.

• Operators

- Commercial Airlines
- Military Airforces

The commercial airlines and the military airforces are the operators of the aircraft. Their particular concern is that our equipment should be reliable, well-supported and have low maintenance costs. They buy spare parts directly from us but they also have an influence on whether or not the constructors choose our landing gear for their aircraft programmes.

• Passengers

Last, but not least, are the passengers. They choose which airlines to fly with and which aircraft to fly in.

Our Markets

The market for our products can be split in a number of different ways:

• Geographical

- Europe
- North and South America
- Rest of World

Within the new worldwide DALG organisation the facilities at Toronto and Montreal are strategically positioned to meet the requirements of the North and South American market. The Gloucester facility provides the focus for the European market plus other developing markets within the 'Rest of the World' such as India, the Far East and Eastern Europe.

• Aircraft Type

- Commercial
- Military

Today almost 70% of our business is for commercial aircraft. In recent years we have shifted the balance of our work away from the declining military market.

• Aircraft Size

- Over 130 seats (large)
- 30 to 130 seats (medium)
- Under 30 seats (small)
- Military aircraft (small/medium)

These aircraft sizes represent the broad market categories of aircraft type, each with its own particular requirements of landing gear design. At DALG we are addressing these requirements with separate dedicated production areas for medium and large landing gear.

The chart overleaf illustrates our major products and customers and how they fit into the broad market categories.



Dowty Aerospace Landing Gear, Gloucester

Small and Medium Landing Gear - Civil

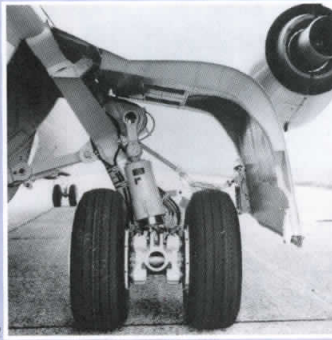
BRITISH AEROSPACE



BAe 146



Nose



Main



BAe ATP



Nose



Main



Fokker 50



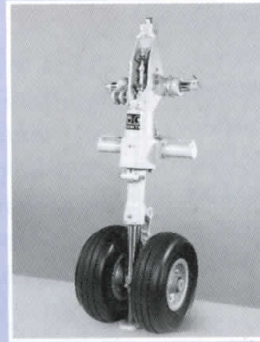
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Main



Fokker 100



Nose

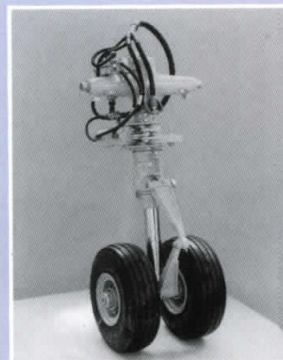


Main

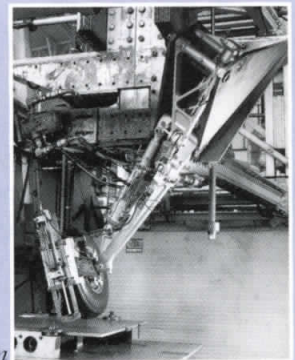
FOKKER



Piaggio P180



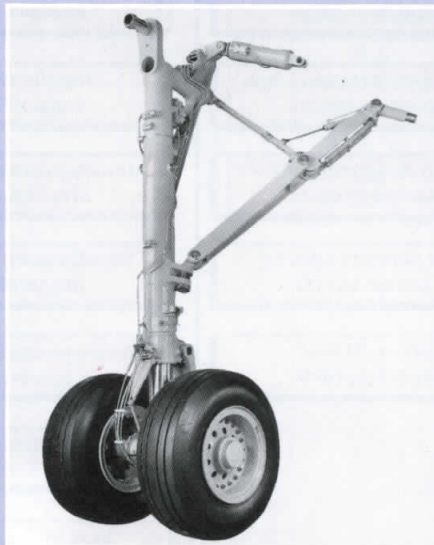
Nose



Main

PIAGGIO

Large Landing Gear - Civil



A310 Main

A320 Main

A330/340 Main

Military Landing Gear

PANAVIA



Tornado Main & Nose Gears



Main

BRITISH AEROSPACE/ McDONNELL DOUGLAS



Harrier/
AV-8B
Main,
Nose &
Wing
Gears

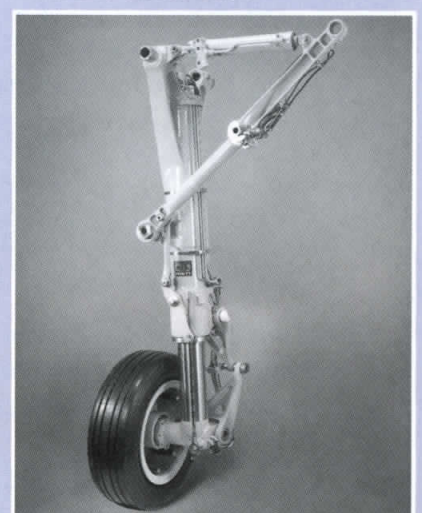


Nose

EUROFIGHTER

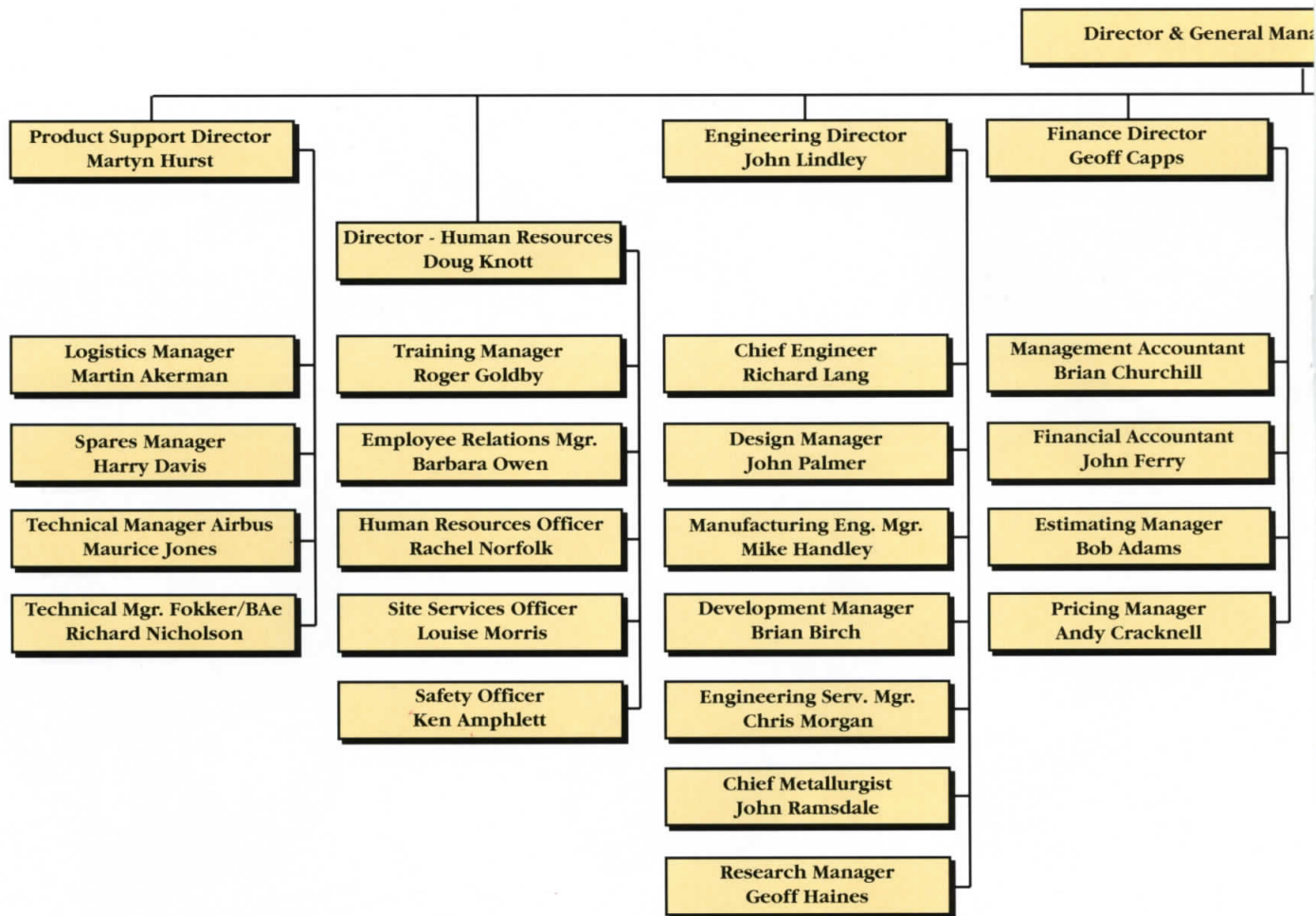


EFA Main & Nose Gears



Main

DALG, Gloucester Organisation Structure (Direct Re



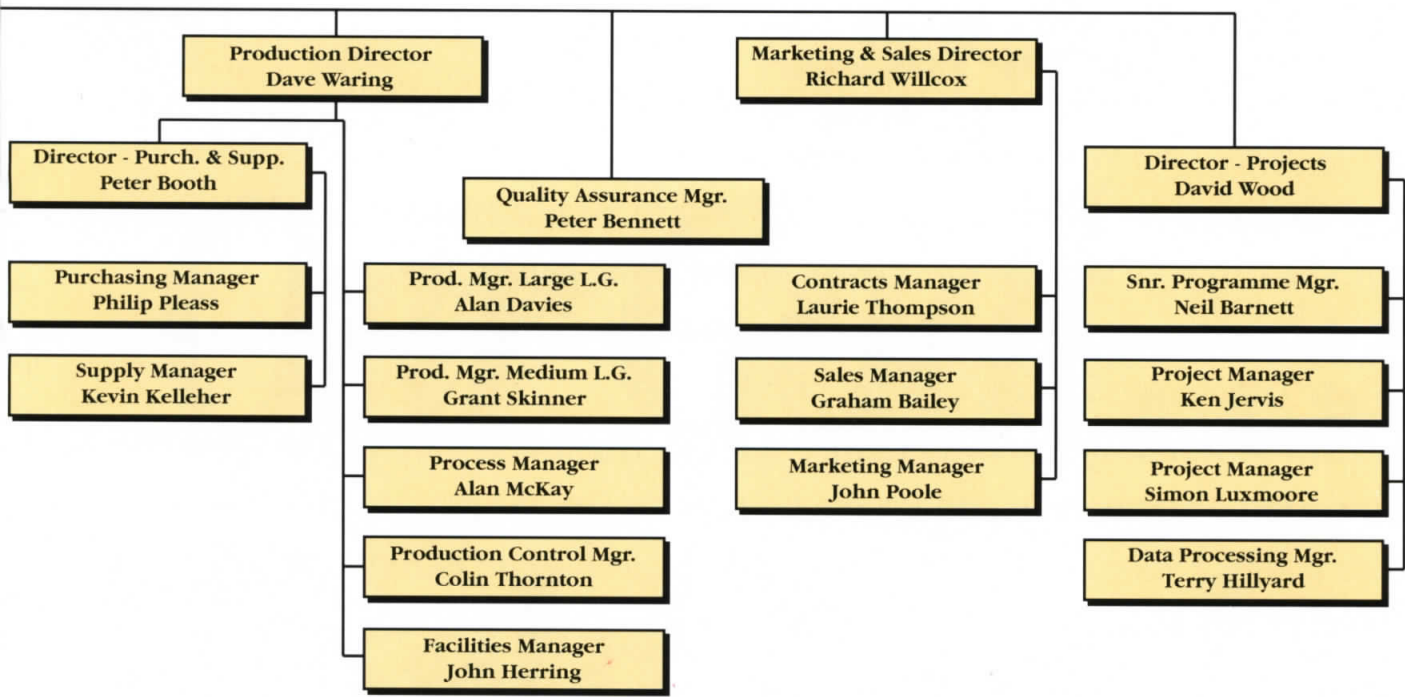
Teamwork - The Key to Success

The strategic intent of DALG worldwide is to become the world's leading Landing Gear supplier through the eyes of the aircraft constructors, operators, shareholders and competitors. Achieving this will involve us all in a lot of hard work; but the designate management team has already made a start.

The first real milestone to be achieved was the identification of a set of Critical Success Factors (CSFs) - ie what "the Team" must accomplish to achieve the strategic intent. The CSFs appropriate to DALG, Gloucester were identified by the designate management team in a number of workshops where all the participants were encouraged to share their ideas as to what we must accomplish. The outcome was agreement on the following CSFs:

- We must all achieve benchmark quality outputs.
- We must all achieve 100% delivery reliability.
- We must create an environment which encourages people to maximise their contribution to the business goals.
- We must attract investment in DALG by improving asset turn and achieving a realistic return on sales.
- We must become the benchmark for after market service.
- We need to develop competitive advantage through innovative design and manufacture.
- We must create an image consistent with our strategic intent of becoming the world's leading Landing Gear supplier.

Manager - Andy Stevens



Clearly, very little would be accomplished if the activity had stopped at this point. Having identified the CSFs appropriate to DALG, some sixty projects aimed at helping DALG towards accomplishing its CSFs were also identified. Not all of these business improvement projects could be started at once, so thirteen key projects were chosen for immediate attention. These projects cover a broad range of activities and include such topics as "Implement Concurrent Engineering", "Train Employees", "Develop Teamwork", "Promote Quality Awareness". . .

The basic approach to all this project activity has been one of building teams to identify the issues, debate problems, agree solutions, and consider how best to implement change. The teams have operated across functional boundaries and have canvassed opinion from people at all levels of the organisation. With DALG now launched it will be possible to start more of the business improvement projects and to involve many more people in the teamwork these projects require.



Concurrent engineering meeting discussing future project activities

Our Plan for the Future

Shown below is the plan for how we want to develop this site for DALG in the longer term.

The essential features of the new site are as follows:-

- *The Production and Commercial Offices, the Engineering block and all landing gear facilities on South Works are vacated.*
- *No. 1 Shop and No. 3 Shop are joined together to form a Medium Landing Gear manufacturing facility. This in turn is joined to the front offices.*
- *The Medium Landing Gear Facility includes the Training Centre, and Receipt, Despatch and Stores areas.*
- *The area shown as offices has Product Support, Human Resources/Site Services, Purchasing, Engineering, and Production Control on the ground floor. Situated above will be Finance, Sales and Marketing, Projects and Quality.*
- *All processing areas are centralised under one roof, conveniently located between our two machining facilities.*

