

Where there's Smoke . . .

. . . there's JEM Smoke Machine Company Limited. John Offord took a trip deep into rural Lincolnshire to check out progress on Heavy Fog . . .

One of the innovative high spots of the 1987 PLASA Light and Sound Show last September was the industry's first view of JEM's 'Heavy Fog' - and the telephones haven't stopped ringing with orders and enquiries ever since. In just 12 weeks or so from now full production of Heavy Fog machines will commence, and the demise of dry ice will begin.

Nigel Morris, JEM's founder and owner, has been in the entertainment business for over 22 years, and started with four mobiles, booking gigs and promoting them and acting as a jock himself almost every night of the week. He then joined Roger Squire at his Junction Road office in North London, eventually becoming sales director for the organisation.

After seven or so years he left to form his own company, importing and distributing selected lighting products such as pinstots, mirror balls and helicopters. He spent two years doing this and at the same time started to research fog fluids.

"We'd realised earlier that there was a need for certain types of fluid that needed developing and we spent a lot of time on this. We ended up selling fluid all over the world," he explained.

"Subsequently, many of these companies said to us: 'Why don't you manufacture a machine?' They had all been well pleased with the fluids we had made, so we went into research again and eventually came up with our model ZR40 machine."

By now Nigel and June Morris had moved house to Lincolnshire, purchasing part of a farm, and the outbuildings became the manufacturing areas for JEM Smoke Machine Co. Ltd. Over the past four years they've built up a range of smoke machines for the discotheque and commercial markets.

"We have an extensive range to suit many different applications," said Nigel Morris. "They aren't just boxes. Over 40% of our business is commercial, and on this side we supply to fire brigades all over the world, to navies, and to the Army. A lot of our equipment is also supplied to people like British Aerospace who use it for development and training purposes. It also goes to companies manufacturing flight simulators. Our equipment is installed in Boeing 727, 737, 747 and 757 flight simulators.

"The discotheque market is where we started our business and it is still the most important part, but certainly the commercial world gives us a very regular base of business."

1987 was a highly eventful year for JEM. They'd launched 'Smoke Detector' at SIB Rimini in May, had seen Heavy Fog become a national name overnight in September, and in November they moved into their newly acquired freehold premises at Spilsby in Lincolnshire with 13,000 square feet of floor space available for further expansion.

A fourth factor now comes into play. Also in November, Nigel Morris launched a new company - JEM Pyrotechnic and Special Effects - and this operation will take over 4,000 square feet of space at the new complex.



Nigel Morris with Heavy Fog - the first industry view at the 1987 PLASA Light and Sound Show.

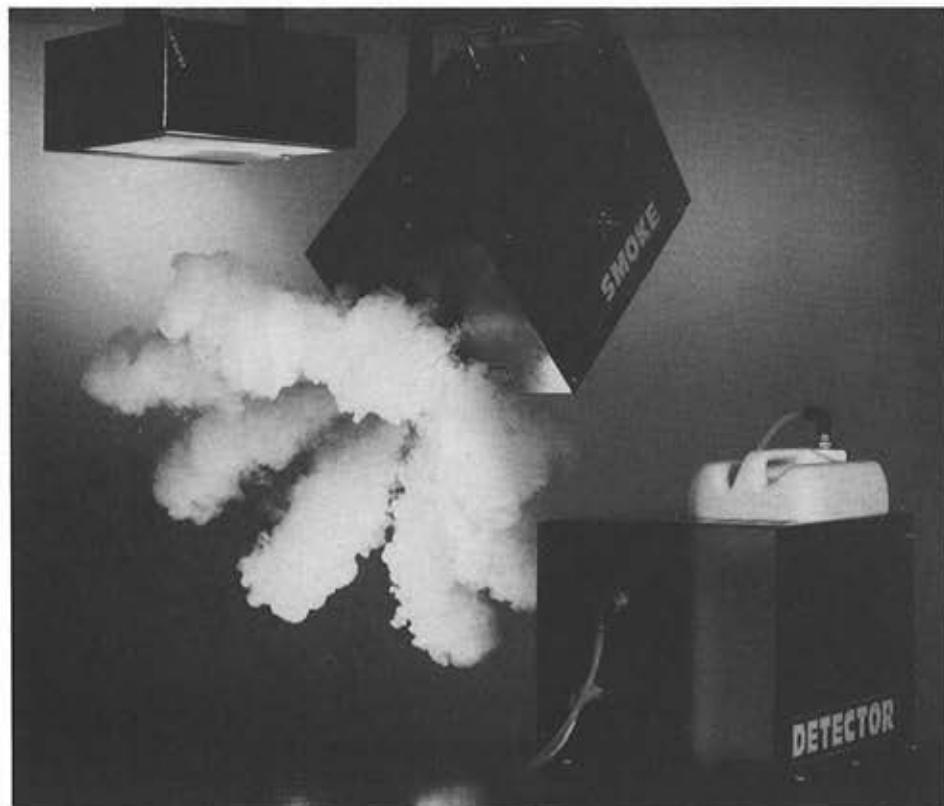
"Several things happened to persuade us to form another company," explained Nigel Morris. "Many people were calling us from the commercial world to ask for special effects. Theatres would ask us for special effects, and we were also being asked to produce firework displays. Then Heavy Fog came along."

I asked how long Heavy Fog had been on the drawing board.

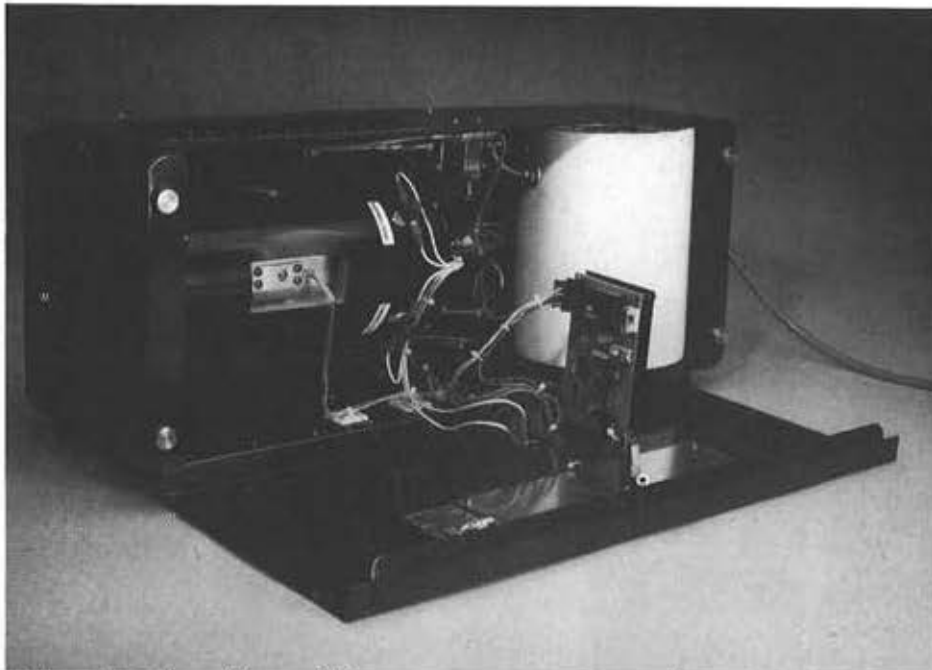
"We'd been thinking about it since we

started making smoke machines - from day one. The real problem was how to do it, and the investment costs involved. About 18 months ago we started experimenting with various kinds of systems for generating cold temperatures. I'm sure many people have been thinking about it for years, but until now no one's done anything about it.

"All along we knew we could do it, but it was a question of time and money - and the space - to develop the concept.



Smoke Detector, JEM's new high power auto sensing smoke system was launched at SIB Rimini in 1987



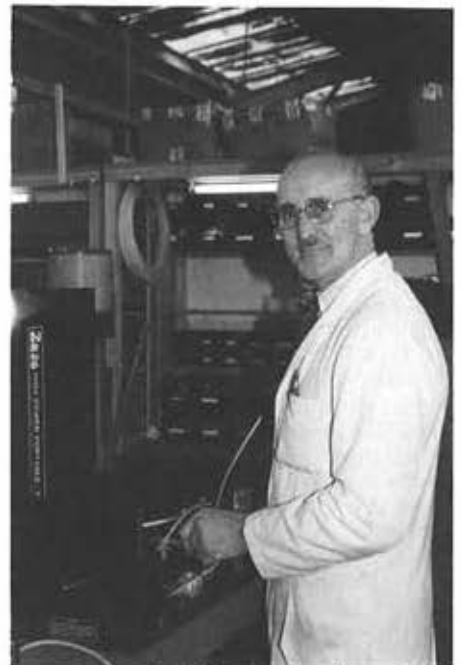
Inside a JEM ZR41c solid state high power fog generator. Most smoke machines have over 200 components.



Nigel Morris shows off a Smoke Detector unit in JEM's manufacturing area.



Monitoring tests on the prototype Heavy Fog machine in JEM's Pyrotechnic and Special Effects section at their new Spilsby complex.



A familiar face in the industry - JEM's production manager David Barker.

"Heavy Fog is currently running at an investment cost of £30,000, and the test equipment is very expensive. We have developed a refrigeration plant that reaches very low temperatures, and the fluid has also been developed specially. The smoke is made in the conventional manner through a smoke machine and is then frozen down to a very low temperature. The machine itself is very complicated and we have two people working full-time on its development.

"The system is currently being tested under various types of load to see how it reacts to various ambient temperatures created by extremely hot smoke. There are 12 probes on the prototype at the moment, and we are carefully monitoring all the results."

JEM will be able to manufacture 60 Heavy Fog machines each month, and there is a big queue of customers awaiting the first output. Officially called the Heavy Fog HF2000, the new machine can also be used as a conventional fog machine using JEM ZR smoke fluid, and a mix of the two fluids can be adjusted to give varying levels of heaviness to the smoke. Up to four lengths of ducting hose can be attached to individual outlets on the front of the machine, and each can be independently turned on or off as required. Wheels make it easily manoeuvrable.

Up to 200 components make up a smoke machine, and Nigel Morris's view is that they should only be used by professional users. "There are many different sciences involved in a smoke machine of any kind. Alloys reach 300°C, and are regularly expanding and contracting. We have heating units, temperature control, electronics and fluids, and all these



The ZR20 portable fog generator.



Manufacture in progress - JEM now has a total of 13,000 sq. ft. of space at its Spilsby base.



A batch of 'Le Fog' machines reach the final assembly and test area. Test engineer in picture (right) is Tony Holland.

elements are very difficult to get into one box and made to last for a long period of time.

"We are happy to give a five year guarantee on our products, and I believe we are the only people in the world to give a guarantee that long.

"Our company is set up specifically to make smoke machines and does nothing

other than make smoke machines. And that's where the expertise comes in. If we can't be the best at it, then something's wrong!"

Exporting is a top priority for JEM, and about 65% of all product goes overseas. And the future looks very exciting. Ten extra permanent staff will be taken on over the next six months just to cope with Heavy Fog, and

coupled with that major improvements are being carried out to the new complex.

By early summer both JEM companies will be firmly in the industry's eye, with sparkling new reception, administration, manufacturing and test facilities.

And, of course, Heavy Fog HF2000 will be all set to give them a hefty launch into the future - complete with appropriate effects.

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HEAVY FOG

"HF 2000" Heavy Fog is the latest development in fog generators from Jem Smoke Machine Company Ltd., "HF 2000" Heavy Fog can be seen for the first time at Plasa 1987 Exhibition on Stand Nos. 75/76/77 & 78.

"HF 2000" Heavy Fog has been designed to simulate the effect of dry ice by producing high volumes of low lying fog.

"HF 2000" Heavy Fog uses a specially formulated water based fog liquid.

By using the standard Jem ZR Fog Liquid "HF 2000" Heavy Fog can be used as a conventional fog machine.

Jem Smoke Machine Company Ltd. probably manufactures the most comprehensive range of smoke/fog machines available today, we have smoke/fog machines to suit every application and our sales staff look forward to demonstrating the full range at Plasa 1987.

"HF 2000" Heavy Fog, the dual purpose fog machine that takes you into the next century.

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