PRIME MINISTER

10 December 1986

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AEW: NIMROD AND THE E-3A

The Secretary of State should be congratulated for producing such a lucid paper on a highly complex subject.

#### Technical Risk

On the basis of the recent trial flights, the technical performance of Nimrod fails to meet the ASR 400 specification by a wide margin - the detection range of the radar is poor, false and unwarranted plots occur on the screen and the radar only detects 30-40% of all targets seen by ground radar. By contrast the E-3A meets the requirements in all essential respects.

Nimrod however is a development aircraft, while the E-3A is an operational one. Comparing Nimrod and the E-3A is like comparing apples and pears. The crucial question which needs to be asked therefore is the following:

"On the basis of improvements in the past six months, what is the probability that GEC will solve their technical development problems and deliver 6 aircraft by mid-1990 which meet the ASR 400 specification."

It is important that you probe the Secretary of State on this issue. To do this the above question might be broken down as follows:

1. Everyone accepts that GEC has improved significantly, since it took over full control of the project in March of this year. What are the nature of these improvements, (a) technically, and (b) in terms of management and organisation?

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- 2. When the Secretary of State issued the new contract to GEC in March of this year, what did he expect that GEC might achieve in six months? Did they have any chance of succeeding? If not, could the Government be held responsible for allowing a major British company with a high technical reputation in domestic and overseas markets to stake that reputation in a contest that it had no chance of winning?
- 3. MOD scientists take a totally different view from GEC's research team as to whether the remaining technical problems can be solved by mid-1990. Why? Is it (a) the inherent scientific barriers which have to be crossed, even if GEC had the best staff in the world (b) the quality of GEC's research scientists (c) the organisation and management of the project within GEC?
- 4. GEC claim the following:

"Since GEC took over full control of the project in March of this year, they have met or bettered every timescale target. Since submitting our bid we have immediately commenced work on the programme and are completely on schedule. There is in short not a shred of evidence that under the current management arrangements on the programme on which we are now working that GEC will be late."

Please see the letter and attachment from Jim Prior (Appendix A).

Have MOD checked these targets are in fact being met? If so, and in view of the financial straightjacket into which GEC have put themselves by this contract, why do they think GEC will not meet them?

5. MOD hired an independent firm, CAP Scientific, to assess the technical risk but then fired them a few days later. Why did they hire them in the first place? If they were fired because they were biased, should the Secretary of State still insist on a second opinion, but from a different source? Would a second opinion be of value in presenting the case to the public?

If these questions are answered to your satisfaction, the Nimrod contract should clearly be cancelled.

My own personal view is that

- (a) GEC are probably correct in claiming that the RAF have a strong preference for the E-3A and that there is an anti-GEC lobby within MOD,
- (b) GEC have taken major steps forward since March, particularly in the management of the project, but
- (c) the inherent technical problems remaining to be solved are formidable and it is almost certain GEC will run into difficulties on this score (after all it took the US something like 15 years plus to crack the problem), which means a delay in the delivery date,
- (d) in order to avoid therefore the possible risk of not having an early warning system by 1990, the E-3A is a safer bet for the UK.

Put in this way the decision is not anti-GEC. It is simply a recognition of the likely delays arising from the formidable technical problems. However it does not put the government in a good light, as they should have recognised the difficulties earlier.

In all the discussions on this subject I have been most impressed by Sir Colin Fielding, the head of research and development at the MOD: he is a master of the subject, a lucid expositor and very fair minded.7

#### Presenting the decision

If the decision goes against Nimrod, there is likely to be fierce political opposition. The presentation of the decision needs to be conducted like a military campaign, with nothing left to chance.

The key questions to which we need answers are:-

- (a) Why did we not take this decision at the beginning of the year: after all we have very little further information?
- (b) What more could GEC have reasonably done over the past 6 months to prove their competence?
- (c) What are the quantity of the offsetting contracts Boeing will place with Plessey, Ferranti and Racal?
- (d) Why did MOD hire Cap Scientific and then fire them? Why did they not replace them by another independent firm?
- (e) What new jobs likely to be created from offsetting Boeing contracts?

Stephen Sherbourne is committed to playing a major part in the presentation exercise.

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BRIAN GRIFFITHS

Letter from J. Prior to Lord Tretgarne

9th December, 1986

#### AIRBORNE EARLY WARNING

We hear that the current stance of the Ministry of Defence Procurement Executive is to prefer AWACS to Nimrod AEW on the ground of risk of Nimrod AEW either not operating up to specification or not being delivered on time; they seem to have no serious doubt about the capability of GEC Avionics to complete the remaining development work, but fear that our record indicates we will be substantially late.

on Nimrod AEW. But what happened when we were working under the direct and specific instructions of MOD on a day-to-day basis has already proved to be no guide to what happens when we have managerial control of the project. Over the last nine months, during which GEC Avionics has had direct control of the job, we have succeeded in solving pretty well all the difficult technical problems, culminating in successful flight demonstrations two weeks ahead of programme. I enclose the relevant progress charts.

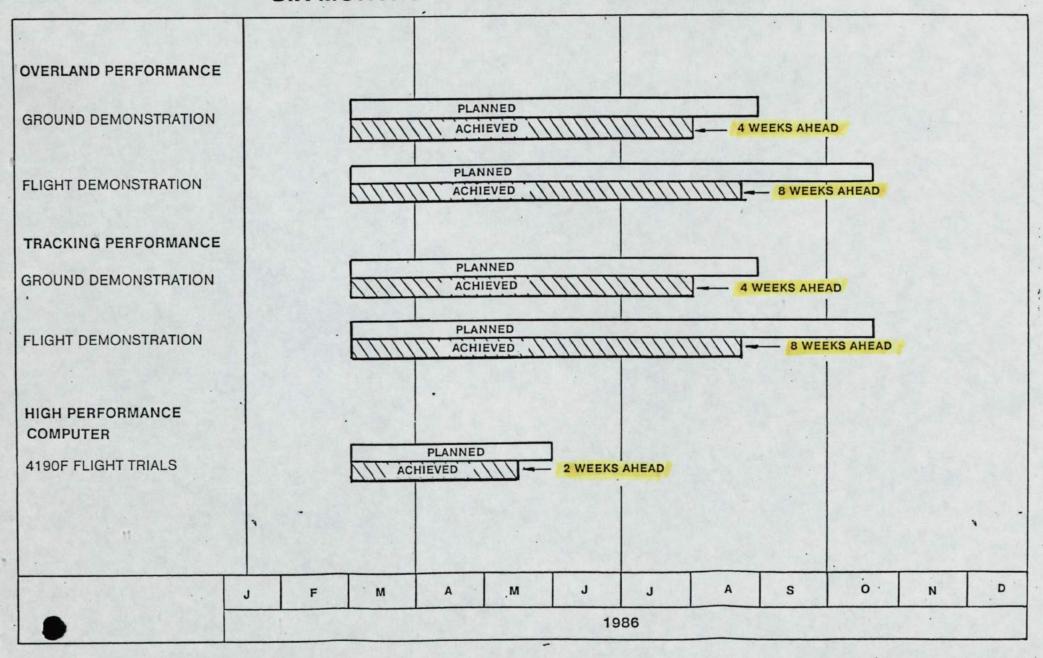
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so far as GEC Avionics is concerned, the remaining tasks are well understood and the time allowed for delivery in our offer contains adequate contingencies. It is on this basis that we have the confidence to accept the dreadful contract terms to which we were obliged to submit during the period of negotiation earlier in the year and which are incorporated in our bid.

We remain sensitive to the active hostility to Nimrod AEW in some quarters of the MOD/RAF, and I therefore write to ask, in bursuance of the assurances you gave at our discussion at the Ministry on 4th December, for the opportunity to respond to the detailed criticism put forward as to the present development status of Nimrod AEW or the competence of GEC Avionics to complete its development on time to the required standard.

The Lord Trefgarne, Minister of State for Defence Procurement, Ministry of Defence, LONDON, SWIA 2HB.

### SIX MONTHS DEMONSTRATION PROGRAMME



## PHASE A PROGRAMME

