

File DCA

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From the Private Secretary

11 December 1986

Dear John,

AIRBORNE EARLY WARNING AIRCRAFT

The Prime Minister held a preliminary discussion this morning on the choice of an Airborne Early Warning Aircraft (AEW), which is to be considered more formally in OD next week. The Lord President, the Defence Secretary, the Chancellor of the Exchequer, the Trade and Industry Secretary, the Chancellor of the Duchy of Lancaster, the Chief Whip and Sir Robert Armstrong were present. Sir Colin Fielding joined the later stages of the meeting.

The Prime Minister said that the purpose of the discussion was to identify the main issues which would have to be weighed in making the choice between the GEC Nimrod and the Boeing AWACs, and to commission any further work which might be needed before the OD meeting. She and the Defence Secretary would be seeing Lord Weinstock on 16 December.

Political Aspects

The Defence Secretary summarised the paper which he was circulating to OD. Nimrod was a British system, was cheaper than AWACs, and the aircraft had already been built. There were therefore obvious advantages in choosing it. But it was acknowledged even by GEC that Nimrod did not yet meet the requirement established in 1977, while AWACs did so and was in service with a number of countries. GEC claimed that further development work would enable Nimrod to meet the requirement within 2 to 3 years. The unanimous view of the defence establishment was that 6 to 7 years was a more realistic period, if indeed GEC were ever able to meet the requirement. Ministers had to choose between these two assessments. In his view it would be irresponsible, in the light of their record with this project, to take GEC at their word.

A number of points were raised in discussion:

- (i) it was difficult for Ministers to reach a judgement on a highly technical issue. But if they were in the

event guided by the unanimous advice of technical experts and the RAF, this would make it difficult for others to argue that the decision was not objective;

(ii) a possible approach would be to say to GEC that the Government would give them 2/3 years to complete the project, but would make no further payments until the 1977 requirements had been met in full. If GEC were to reject this proposition, as was likely, they would be on the defensive. The problem with such an approach was that if GEC were to accept the challenge but once again failed to meet the requirement, the RAF would be left without an AEW capability;

(iii) making the case for AWACs involved drawing attention to GEC's failure. This could be very damaging to their prospects and to the national interest. The greatest care would be needed;

(iv) there would be difficulties in containing the cost of either system within the agreed public expenditure totals. The difficulties would be greater with AWACs. If AWACs were chosen, it might be necessary to order fewer aircraft, perhaps as few as 4. Arguably this would be more in line with our normal share of what should be seen as a joint NATO effort. On the other hand, the UK would not be able to cover its allotted tasks with only 4 aircraft. If 6 aircraft were ordered, the Defence Secretary would need to be able to show what economies he was making in other areas to accommodate AWACs;

(v) the arguments in favour of AWACs in the Defence Secretary's paper were compelling. In the event that OD decided to buy AWACs, we must be ready with an effective public presentation of the case for doing so. It would also be necessary to move rapidly to convince the Government's supporters in Parliament. The presentation should be worked up straightaway and should deal with claims made by GEC: for instance their assertion that since they had taken direct control of the project, they had succeeded in solving pretty well all the difficult technical problems, and had met or bettered every timescale target;

(vi) in the context of a decision in favour of AWACs it would be important to get the most detailed possible statement from Boeing of the offset work which would be placed with British companies.

### Technical Aspects

Sir Colin Fielding joined the meeting to deal with a number of technical points about Nimrod:

(i) it was not the case that MOD had, as GEC alleged, 'moved the goalposts'. The basic requirement had been unchanged throughout the history of the project. In particular, the MOD had never demanded a capability to

track targets over land. The only stipulation had been that over sea performance should not be devalued when flying near or over land;

(ii) the MOD had assessed in 1985 that Nimrod's radar would never be able to meet the required detection range of 190 nm. GEC had argued that, with a major effort, the range could be achieved but had still not done so. The system was defective in terms of power and of the aperture of the radar. This in turn stemmed from the decision to squeeze the radar into the nose and rear of the aircraft rather than build a radardome. Considerations of weight and aerodynamic effect made it impracticable to put a radardome on Nimrod;

(iii) the Nimrod system might, with a lot of hard work, be capable of meeting the tracking requirement. But it could only be done by introducing fixers, which would degenerate other aspects of the system's performance, and probably make it even more difficult to achieve the required detection range;

(iv) the computers for data handling were not sufficiently powerful. GEC were probably capable of achieving some improvement of performance with the 41/90 computer. But a much more complex multicomputer would be required to make the system effective in the longer term. Although GEC claimed that they could develop this by 1991, MOD assessed that the problems were too difficult to crack in that timescale;

(v) GEC's original proposal in 1977 was based on reasonable assumptions about the march of technology, and their failure could not have been predicted. But there had been a progressive realisation in the MOD during the 1980s that the Nimrod system was fundamentally flawed. Even then it had been difficult to say absolutely that GEC could never meet the requirement. This was why MOD had agreed to GEC's plea to be given a further six months. Nonetheless the company would have been aware at that stage, from MOD's audit of the project, of the Government's substantial reservations about GEC's capacity to complete it satisfactorily;

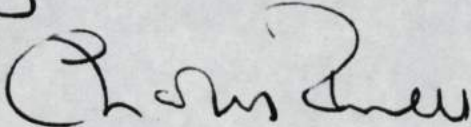
(vi) GEC's project management had been faulty. In particular they had failed until recently to appoint an individual as overall project manager;

(vii) AWACs met all the basic requirements established in 1977, and did not have Nimrod's problems e.g. over blind speed. The only area in which further work was required was introduction of the Link 16 data link, to allow information to be transmitted to other aircraft and to the ground. This was required both for AWACs and Nimrod. Since it would be needed in all AWACs aircraft in and entering service, the prospects were that Boeing would find it easier to manage introduction than would GEC.

The Prime Minister concluded that two further papers were required for OD and should be available by the evening of 15 December:

- a clear statement in layman's language of the technical problems encountered with Nimrod, following the lines of Sir Colin Fielding's presentation;
- a paper setting out the public presentation of the case for buying Nimrod and AWACs respectively, and proposing responses to criticisms likely to be made. The paper should bring out the consequences for the RAF of any further delay. It should be prepared by the MOD in co-operation with the No.10 press office.

I am copying this letter to the Private Secretaries to the Lord President, the Chancellor of the Exchequer, the Trade and Industry Secretary, the Chancellor of the Duchy of Lancaster, the Chief Whip and to Sir Robert Armstrong.

Yours sincerely,  


(C.D. POWELL)

John Howe, Esq.,  
Ministry of Defence.