

22 October 1986

PRIME MINISTER

As you know I am joining Plessey.
 Plessey will be one of Boeing's NIMROD OR AWAC
 UK partners if they were to win. *Rw.*

How Culpable are GEC?

There can be now doubt Arnold Weinstock grossly over-sold the virtues of the GEC approach back in 1977, but right from the start it is clear from papers that I have seen that both GEC and MOD were well aware of the technical problems that would arise.

The overland performance that became so contentious because of clutter problems was clearly flagged by both sides. It is wholly misleading for the MOD to suggest that the aircraft does not have to fly over populated areas because it matters not where the aircraft is but what its radar is illuminating. Although the MOD now claim that the ASR requires the Nimrod to spot targets against a background of land, the papers clearly show that this was not the MOD's original interpretation. Likewise computer capacity was accepted as inadequate and as early as 1977 the idea of a training standard solution was being discussed.

In my view both MOD and GEC had a mutual interest in concealing these problems because they would have caused considerable difficulties and perhaps jeopardised continuation of the project, particularly during the moratorium on defence expenditure.

What of GEC's Technical Competence?

GEC were trying to develop an AEW system in less than half the time that it took the Americans, and although considerably more has been spent than we would have liked, I would be surprised if reaching this stage of development cost the Americans any less. In the past six months GEC have genuinely made tremendous strides in sorting out the major problem areas. If they were able to sustain the

same level of achievement over the considerable problems yet to come, then they ought ultimately to deliver a reliable system. I believe that GEC are capable of doing this provided they are prepared to continue to commit the resources and the management to the project.

Comparison of AWAC against Nimrod

The AWAC is not the ultimate AEW system. Neither the AWAC nor the Nimrod currently has the JTIDS communications system because this has yet to be fully specified by the Americans. The AWAC does not detect targets flying at less than 85 knots (a problem that has plagued GEC), nor apparently can it guarantee to detect all the targets that there might be in an area. It is said to require a larger crew and not to be so highly automated as the Nimrod. It can only handle 300 tracks and spare computer capacity is less than required. It lacks frequency agility for anti-jamming. All these claimed differences (and no doubt others) should be resolved in the fly-off.

But the major difference is that the AWAC is an existing system with proven mission reliability. Even if Nimrod meets its forecasts, AWAC reliability will still be considerably greater.

Stretch Capability

By the time our new AEW system goes into service the Russians will be developing, or indeed may well have developed, new threats particularly in the form of more distant stand-off cruise and stealth missiles. The ease with which the system can be adapted or stretched to meet the developing threat will therefore be a key factor.

The Americans are certain to develop the AWAC to meet the threats that they perceive to be important, but these will

not necessarily be identical to the UK's requirements. Indeed, if the unilateralists succeed in breaking up NATO, then the role of the American AWAC could be substantially different. Moreover the Americans wish to keep all of the AWAC technology to themselves and the UK may be unable to modify the AWAC without their cooperation.

By contrast the Nimrod will be entirely under UK control. But there is a risk that the UK will be unable to meet the developing threat on its own because the GEC system and more particularly the Nimrod airframe are already stretching towards their limits.

Conclusions

It is not possible to make a recommendation on which system should be chosen until the MOD have completed their evaluation and hopefully had a fly-off between the two aircraft. The price of the AWAC, even after so many have been produced, demonstrates that it is not so much that GEC have spent an outrageous amount of money in trying to develop the Nimrod, but rather that GEC made a reckless promise as to what they could achieve. GEC should not be ruled out at this stage, quite apart from political considerations, because if they are prepared to make the commitment then they could still be a realistic contender.

In deciding between the two options the MOD must produce a proper and complete comparison of their technical capability and an assessment of their stretch potential. You will want to be sure that modifications to meet the changing threat will be made available on the AWAC at a reasonable price (and preferably undertaken by British Companies) and that in any offer that GEC make there is a genuine and sustained commitment to delivering the goods.

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