

Defence
Budget

p/9



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15th March 1983

Await Chief Secretary

reply.

A.F.C. 15/3

THE EH101 MEDIUM HELICOPTER

In his letter of 11th March Patrick Jenkin mentioned that I would be writing to you with further details of the Defence case for this Project. With his letter Patrick forwarded the draft paper prepared by his officials and mine against the possibility of collective discussion, together with annexes setting out in greater detail the commercial case and estimated programme costs. To complete the picture I am now sending you the draft annex dealing with the defence aspects.

It seems to me that the papers make it apparent that the defence case is strong, clear and, I believe, uncontroversial. I also fully support Patrick's proposals for launch investment. In the light of the positive approach adopted by the Prime Minister in her recent discussions with Signor Fanfani, and of the general support of Misc 25 for the commercial proposals, I now seek your agreement to the defence elements of this integrated naval/commercial programme.

The Rt Hon Leon Brittan QC MP



In doing so I would like to highlight a few points. EH101 breaks new ground in bringing together the resources of Government and private industry in a programme aimed equally at meeting defence needs and at maximising exports. The potential benefits of this approach are very substantial and I hope that EH101 will be the forerunner of similar projects in future. But it is very much a trial horse - if it is not a success the chances of launching similar projects will be seriously reduced. I believe that the surest way of condemning EH101 to failure would be to over-manage and under-finance it. We on the Defence side have therefore adopted a flexible approach to management, giving more responsibility to industry. We have also arrived at funding arrangements with Westlands which represent a sensible balance between incentive to efficiency and adequacy of funding in the light of the firm's financial prospects.

My second point concerns the Italian position. I understand that your officials are concerned that Signor Fanfani's rather odd reference at the post-Bilateral press conference to the "enormous workload" on Italian MPs might presage some change of heart on the Italian side. In addition I gather that there is some scepticism in the Treasury that an early UK decision would speed up the decision-making process in Italy. I can only say that in my own discussions Signor Lagorio was at pains to emphasise the Italian Government's firm commitment to securing parliamentary approval for the defence funding of EH101, and he confirmed that he expected Senate approval - the major hurdle - shortly. The proposals will then go to the Chamber of Deputies and subsequently to a special "legal" committee. We have to recognise that in Italy the government of the day has less direct control over the scheduling of parliamentary business than we do, and that more is done by governmental and industrial lobbying than is the case at Westminster. That is why Patrick Jenkin and I are anxious to secure an early decision on the UK side in order to bring the maximum possible pressure to bear upon the Italian system.



As to costs, the papers attached to Patrick's minute set out the estimated overall costs of the project, the UK share, and the division of that share between MOD and industry. The calculations are not straightforward - principally because of our need to make provision for the RN's mission system requirements, which were excluded from the companies' figures, and also because of our judgement that it would be prudent in the light of past experience to include allowances for contingencies for our own budgetary purposes. Taking account of these factors we estimate the cost to MOD of our share of the development phase, at September 1982 economic conditions, to be £348.5M VAT exclusive, equivalent to £393.5M inclusive of VAT. It is the latter figure for which I am now seeking your approval.

For completeness, you will wish to note that we expect the cost to MOD of subsequent phases, again at 9/82 prices and including contingencies, (but exclusive of VAT to facilitate comparison with the attached papers), to be as follows:

	<u>£M</u>
Production investment	38.6
Production of 50 aircraft	411.7
Initial support and training	158.9

These figures have to be seen in the context of the critical importance of Anti-Submarine warfare to our defence and the essential role which surface ships like the new Type 23 and their helicopters will play in our ASW effort. We have carefully looked at all potential alternatives, particularly the American Sea Hawk, and the possibility of up-rating the Sea King, but all fall far short of the RN's needs, which are met by EH101. The proposed programme will cost some £111M less than would a collaborative purely naval project and provision has been made for it in the Long Term Costing.



I should make it clear that the approval I am now seeking is strictly related to the UK MOD's share of the cost of the programme described in the attached papers - that is, with participation by the Italian MOD, the two Departments of Industry, and by Westland and Agusta. Should one or more of our partners be unable to proceed I would come back to you and colleagues with fresh proposals.

To summarise, I am most anxious that development of EH101 be launched as soon as possible. There has already been slippage - if Italian procedures can be completed in time to permit development launch by the end of July, the RN's first operational squadron should form in November 1993, almost a year later than called for in the Naval Staff Requirement. This delay will cause highly unwelcome operational penalties; and I share industry's view that the commercial versions must be available at the earliest possible time in order to maximise market penetration. There is no cost-effective means of significantly advancing in-service dates by shortening the development programme and it is essential that we make an early start. I very much hope therefore that you will feel able to give the approval to development on the basis proposed.

I am sending copies of this letter and its attachments to the Prime Minister, Francis Pym, Patrick Jenkin, Norman Tebbit, Arthur Cockfield, Robert Armstrong, and John Sparrow.

Yours
lhw

Michael Heseltine

EH101 - THE MOD POSITION

1 The Royal Navy has a requirement, approved by the Operational Requirements Committee, for a new medium helicopter which will progressively replace the Sea King in the anti-submarine warfare role in the early 1990s. Anti-submarine warfare is going through a period of substantial advance: new sensors are being developed which will be fitted in frigates (modified Type 22 and the new Type 23) and which will detect submarines at very much greater ranges than conventional sonars. To take advantage of this increased performance a helicopter is needed which will possess greater endurance than Sea King while carrying on a significantly better on board sonics system.

2 A key additional feature of the requirement is that the new helicopter must be able to operate from ships of frigate size in the poor weather and rough sea conditions frequently experienced in the North Atlantic: Sea King can only operate from such small ships in relatively good conditions. In simple terms, therefore, the Navy needs a helicopter of Sea King size, with better endurance and avionics, but with the agility of the Lynx. EH101 meets this requirement.

3 The MOD has, however, a strong interest in keeping down costs: earlier, national, projects such as WG34 were rejected as being too expensive. As a step in this direction, collaboration was established in 1979 with Italy, whose Navy (MMI) has a requirement for a helicopter with a very similar performance to that needed by the RN, although the MMI would use a different sonics system matched to their operations in the Mediterranean. A joint Project Definition Study was completed last year by EHI Ltd, the joint company established by Westland and Agusta, under contract from the UK and Italian MODs. At both official and industrial level collaboration is working well.

4 This joint Project Definition work was successful in producing a design which meets the needs of the two Navies. It has been tailored to provide a sensible balance between performance and risk and cost. The airframe employs new techniques, such as composite fibre materials and CRT cockpit displays, where these have been sufficiently tested and their application is advantageous. Use of the well proven General Electric T700 engine is proposed (though the RTM 322 would be considered if it were proven in time and offered cost advantages); and in the RN version the sonics system will be an evolution of the well-tried Nimrod system.

5 However, the search for economy has not stopped there. Both the MODs and industry were anxious that the commercial possibilities of the new helicopter should be fully exploited. During Project Definition an independent market survey commissioned by

industry showed that very good sales prospects exist for passenger, utility and export naval versions of the helicopter whose design was emerging. Studies also showed that many important elements of the design could be common to all versions. So was born the concept of the integrated programme.

6 It is important to recognise that the integrated programme does not represent a shotgun marriage of potentially incompatible partners. The market for the commercial versions exists in the same timescale as our own and the Italian navy's requirements. Using the same dynamic system - essentially the heart of a helicopter - for the complete range of naval and commercial versions, and maximising commonality elsewhere, makes good engineering sense as well as financial sense. By developing the naval and commercial versions in an integrated programme, based upon the same technology core, commonality can be built in at the design stage wherever possible, and duplication of effort can be avoided by such means as the read-across of structural and flight testing results. Such a programme offers valuable benefits to both defence and commercial interests at all stages from development through to in-service support.

7 It has been realised from the outset that such a programme, in which neither military nor commercial interests dominate, requires some adjustment of attitudes on the part of both MODs and industry. MOD have accepted that they cannot run the project as they would a purely military, wholly MOD-funded programme; likewise, industry recognise that they have to take proper account of the interests of the MODs who are, as well as being contributors, also substantial early potential customers with a requirement for some 88 helicopters (50 RN: 38 MMI). MOD are therefore proposing to give more responsibility to industry for the day to day running of the project than would normally be the case, though MOD will, of course, need to be kept fully up to date with what is going on. Common problems will be resolved by discussion with industry. As a safeguard, however, MOD are negotiating contract conditions which will place an incentive upon industry to control the costs of the naval elements of the programme as well of those of the commercial elements.

8 The funding arrangements for the UK share of the integrated programme have occupied a great deal of attention over the past months. MOD were of the view that the right arrangement was for industry and the MOD to share the costs of the common technology work equally as they arose, with each side additionally funding the further work of direct interest to it. After considerable discussion, however, MOD accepted that, whatever the merits of this proposition in principle, Westland were in no position to finance their share of it in the short term. A compromise arrangement has therefore been arrived at under which MOD would fund the UK share of the common basic and common naval development work up to a target price based upon the development cost plan (DCP) estimate; any excess costs would be shared in the ratio 70% MOD: 30% Westland. A converse arrangement would apply to production investment. MOD regard this arrangement as meeting their objective of placing an incentive

upon the company to control costs in the naval area, while at the same time being realistic in relation to the company's forecast cash flow position.

9 The fact that MOD's financial contribution to the integrated programme will, unlike that of DOI, not be a fixed sum leads us to a different approach to estimating costs for approval and budgetary purposes. On EH101, as on other projects with which we deal, there are essentially 3 levels of estimate involved:

- (a) the firm's DCP figure, which in the case of EH101 (and this is not unusual) assumes a high degree of first-time success at the design and testing stage;
- (b) our own Directorate of Project Time and Cost Analysis (DPTCAN) estimate of "mean probable outturn", which is arrived at by a line by line analysis of the DCP making allowances for re-work or exclusions on the basis of experience with other projects;
- (c) DPTCAN's "unlikely to exceed" estimate, which is the figure at (b) above, but with addition of a block contingency allowance.

It is on the basis of (c) above that we seek financial approval and make budgetary provision. This practice has been followed for EH101 and explains why MOD's estimates are higher than Westland's. An explanation of the different figures is at Annex B.

10 One aspect of the EH101 programme which is of increasing concern to MOD is timescale. The Naval Staff Requirement calls for the first operational squadron to be formed in 1992, which could have been achieved if development had been fully launched, as hoped a year ago, by June or July 1982. In the event it has taken much longer than expected to finalise the arrangements for the project, while on the Italian side the finance bill, which will provide funds for their MOD's contribution to the naval elements of the programme, has been delayed in its passage through parliament by the government crises of last Summer and Autumn. We are now at a point where passage of the bill by the Senate is expected very shortly which should enable the parliamentary process to be completed by the end of April. If that timescale is met subsequent administrative procedures in Italy should permit development to be launched in July 1983. On that basis formation of the RN's first operational squadron would not take place until November 1983, which would entail highly undesirable operational penalties.

11 MOD consider that the time has now come for the UK to take a firm decision that EH101 should proceed in the proposed form as an integrated programme. Such a programme will never get off the ground if each participant waits for the other to secure the necessary approvals before taking its own decision.

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Approval on the UK side will

enable us to bring pressure to bear upon the Italians to avoid further slippage which would increase the operational penalty to the RN's anti-submarine capability and be of advantage to potential competitors in the commercial market.

9 March 1981

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18 MAR 1983





Secretary of State for Industry

DEPARTMENT OF INDUSTRY
ASHDOWN HOUSE
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LONDON SW1E 6RB

TELEPHONE DIRECT LINE 01-212 3301
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11 March 1983

The Rt Hon Leon Brittan QC MP
Chief Secretary to the Treasury
HM Treasury
Parliament Street
London SW1P 3AG

Dear Leon,
EH101 HELICOPTER PROGRAMME

You will know that officials have been examining in depth the question of Government support for an integrated Anglo-Italian helicopter project namely, the EH101. This is designed to meet the needs of the navies of both Italy and the UK for a replacement anti-submarine warfare helicopter in the 1990s, and at the same time to enable the industrial partners in the proposed project (Westland and Agusta) to tackle what is believed to be substantial additional market for this type of helicopter.

2 In the light of the inter-departmental discussion in MISC 25, I am now writing to seek your agreement to the provision of adequate launch aid for Westland to enable them to go ahead with the development of the civil version of the helicopter, and to meet their share of the other non-recurring costs of the integrated programme. I understand that the Secretary of State for Defence is also now writing to you about going ahead with the development of the naval version of the helicopter.

3 I think you will find that the enclosed paper written in conjunction with the MOD provides all the information needed to reach a judgement on the amount of launch aid which should be offered to Westland. The majority of MISC 25 considered that we should aim to agree launch aid support in the region of 50-75% of that being sought by the company, and that our opening offer should be 50%. Treasury officials, however, reserved your position on the amount of launch aid which could be justified, suggesting that the case for launch aid at half this level should be explored.

4 For reasons which have been spelt out in more detail in the MISC 25 minutes and in the attached paper, I do not believe that it would be at all realistic to try and open negotiations with the company by offering less than 50% of the aid being sought, ie



below one quarter of Westland's total estimated costs. If we are to have a realistic, though rigorous negotiation, this should be based on an opening offer of 50%. Any lesser figure is likely to stop the negotiations in their tracks and make all the more difficult the task of securing our objective of a 5% rate of return on the launch aid sum finally negotiated. If we want Westland and Agusta to make a success of this programme as a whole there is really little point in starving Westland of a reasonable level of support.

5 A decision is now urgent. If the start date is delayed beyond July this will endanger the required in-service date and damage market prospects. Although a UK decision now in favour of the programme must be conditional on Italian defence funds becoming available shortly, such a decision should serve to bring the Italians up to the mark promptly.

6 At the end of the Anglo-Italian Summit the Prime Minister expressed the hope that we should be able to go ahead this summer, the joint development of the EH101 being extremely important to both countries. This will not be achieved unless the Italian Parliament approves the defence funding shortly. The Italian Ministry of Industry has long pointed out that our formal commitment to the joint programme will do a great deal to hasten this approval. My counterpart, Signor Pandolfi, and I therefore expressed the hope during the Summit that we would be able to sign an agreement before Easter covering the civil side of the programme. (The Confidential Memorandum in question will not, of course, be brought into effect until the two Ministries of Defence sign a joint Memorandum activating the development programme; the text also makes clear that the provision of launch aid support is conditional on each company satisfying national criteria for such support.)

7 Although the exact amount of launch aid support cannot be determined until negotiations with Westland are complete, I should remind you that my Department has no PES provision for any new launch investments. I will therefore need to look to the Contingency Reserve to meet any agreed commitment to the company.

8 I am copying this letter to the Prime Minister, Francis Pym, Michael Heseltine, Norman Tebbit and Arthur Cockfield. Copies also go to Sir Robert Armstrong and John Sparrow.

Yours ever
R
Faulkner

EH101 HELICOPTER PROJECT

Introduction

1 In this paper we seek agreement to the provision of financial support for the EH101, an Anglo-Italian project for a new medium sized helicopter. For the first time in the aerospace field this project would bring together government and private venture finance in both the UK and Italy in order to meet domestic naval needs and at the same time attack a substantial commercial market for this type of helicopter. But adequate finance and an early start are essential if the project is to succeed.

The Proposed Programme

2 Westland and the Italian firm Agusta have been working together for 3 years and the project is now ready to proceed to development. The design concept is that a common dynamic system (rotors, drive and gearbox) will be used in versions for the RN, Italian Navy (MMI) and other navies; for civil passenger transport; and for utility work. New but well tested technology will be used. The RN/MMI and commercial versions will be developed in parallel from a common technology base. This integrated programme approach will (by avoiding duplication of effort in design and

testing, and by maximising commonality) bring economies at all stages of the project from development through to in-service support.

3 In order to meet programme timescales current plans call, initially at least, for American General Electric T700 engines (3 per aircraft) to be used, different models covering particular customer needs. However, launch of EH101 on this basis would not prejudice a subsequent decision on the Rolls-Royce/Turbomeca RTM322 engine, proposals for which are currently being assessed, since it could be introduced later if development were to proceed and the engine proved sufficiently attractive. (Any case for Government support for the 322 must await a full market analysis; a clearer picture of the collaborative arrangements under discussion; and an assessment of the consequences for the UK's small engine capability of the project not proceeding).

4 The RN has a firm requirement for 50 new helicopters to replace the Sea King in the anti-submarine warfare role progressively in the early 1990s. On 23 February the Defence Equipment Policy Committee endorsed the development of EH101 as part of an integrated naval/commercial programme, to meet this need. The MMI has a similar requirement for 38 helicopters in the same timescale.

5 Westland and Agusta last year estimated sales of 1050 helicopters over the period up to the year 2008, including up to 345 civil sales. The companies' estimate is on the prudent assumption that a new competitor will emerge - although none is at present in sight - and that the EH101 will capture no more than one third of the potential market for helicopters in this class. The Defence Sales Organisation estimate of other than civil sales is in the range of 600-700, close to Westland's latest forecast of just under 700 sales. DOI analysts considered that the companies' 1982 forecast of civil sales was rather optimistic and Westland themselves have very recently adjusted their estimate of civil sales downwards to just under 300 in the light of the delayed start to the programme. Sensitivity analyses conducted by the DOI show that even with sales significantly below those originally forecast by Westland the project as a whole would still

produce a healthy internal rate of return. The Westland launch-aid case is described more fully at Annex A.

6 The aim which has been agreed between ourselves and Westlands, and with the Italians, is that work on the programme would be shared equally between the UK and Italy in terms of both value and technological content. This objective would apply to equipment as well as to the airframe itself.

Costs and Funding

7 The estimated total cost of development and production investment, and the expected UK and Italian shares of it, are set out in Annex B, Table 1. Table 2 breaks down the UK share between MOD and Industry, reflecting MOD's agreement that, in the light of Westland's short term cash flow limitations, it is prepared to pay for the whole of the UK share of the common technology and common Naval development work up to a target level. Any overrun on development would be shared 70:30 with a converse arrangement on production investment. (MOD would of course pay the whole cost of RN-specific work such as the mission fit). Although the companies' cost estimates are based upon a detailed development cost plan, MOD considers that it would be prudent to add contingencies for its own financial ~~planning purposes~~ and proposes to budget for a development cost of £393.5M at 9/82 ECs (inclusive of mission fit and VAT). Provision for this has been made in Long Term Costings.

8 Because of their heavy financial commitment to the existing WG30 programme, Westland are unable to finance the whole of the UK share of the commercial elements of the project themselves and have sought launch aid of £81M at 1982 ECs (£105M at outturn prices). This represents 50% of Westland's estimate of their share (including a 10% contingency figures) of the non-recurring costs of the project. A meeting of MISC 25 on 24 February concluded that Westland's case was good enough to justify the Government's providing launch aid, though not at the level requested by Westland, and that a 5% real rate of return on such an aid should be sought.

9 A majority of the Committee considered that the aim should be to agree launch aid in the region of 50% - 75% of that sought. The Treasury indicated however that it is not convinced that aid on this scale is justified and wishes the case for only 25% to be explored further. The DOI view is that this would be regarded, justifiably, as totally inadequate by the Westland Board and that a realistic, though rigorous, negotiation should be based upon an opening offer of 50%, with the aim of settling between that level and a maximum of 75% - that is, between £41M and £61M at 1982 ECs (£53M - £79M at outturn prices).

10 Both DOI and MOD believe firmly that an HMG contribution to the cost of EH101 should be pitched at a level which would provide a real spur to efficient management by the companies. But under-financing a project of this nature is likely to severely prejudice its chances of success and prove a false economy.

11 There is a further difficulty in that DOI has no PES provision for any new launch investment projects. Nor could DOI expect to find any off-setting savings to meet the launch aid cost of the EH101. The DOI would need therefore to look to the contingency reserve to enable it to discharge any agreed launch aid commitment.

The Italian Position

12 At both Government and industrial level Italian support for EH101 is strong. The Italian Department of Industry already has funds available for launch investment support to Agusta and is anxious to sign an inter-Ministerial memorandum on this aspect of the programme as soon as possible. The Italian MOD, however, is dependent upon a new finance bill for its contribution to EH101 development. This bill has been delayed by successive Governmental crises but its passage is expected by late March/early April. We are anxious to secure an early decision on the UK side in order to bring pressure to bear on the Italians to speed up their processes and avoid further prejudicial delay.

The Benefits

13 EH101 offers a unique opportunity to sustain the UK's very substantial helicopter capability at Westland. The Company's overall strategy must be to reduce its dependence on wholly MOD-funded contracts, an objective which we endorse in the interests of efficiency.

14 Collaboration with Agusta, with its efficient management and good sales record, fulfils a primary DOI objective of encouraging international collaboration in the aerospace field to spread risks and costs, and to widen market opportunities. The companies are well matched and will form a very powerful European grouping to compete with the Americans.

15 The UK share of the proceeds of forecast sales (including spares) would amount to more than £5 billion at 1982 prices.

16 At peak production EH101 would preserve or create some 5000 jobs at Westland plus a similar number in supporting UK industries.

17 The RN would obtain, at substantially less expense than that of a purely military programme, the helicopter which it needs to fulfil a vital role in its critically important anti-submarine operations. No other helicopter offers comparable performance.

Conclusions and Recommendations

18 EH101 represents a new and promising approach to an aerospace project by harmonising to a large degree defence and commercial requirements from the outset. Harnessing government and industrial financial resources in both the UK and Italy will enable defence needs to be met while at the same time providing industry with a positive incentive to attack a substantial commercial market. If success is to be achieved, however, it is important that development be launched as soon as possible and that the project should not be under-financed. An early

commitment on the UK side will enable pressure to be brought to bear upon the Italians to speed up their decision making.

19 Accordingly we invite colleagues to agree:

- a that MOD and DOI should provide financial support for the proposed Anglo-Italian integrated naval/commercial programme;
- b that DOI should seek to negotiate launch aid for Westland between a minimum of 50% of that sought and a maximum of 75% (£41M-£61M at 1982 ECs); and
- c that funds for this DOI launch investment should be made available from the Contingency Reserve.

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ANNEX B

EH101: ESTIMATED UK SHARE OF DEVELOPMENT AND PRODUCTION INVESTMENT COSTS

The following is a comparison between the figures in Table 2 attached (which have been prepared by the Ministry of Defence as their estimate of EH101 development and production investment costs, including RN specific costs not part of the common collaborative programme falling to the UK) and those supplied by Westland in support of their launch-aid case in which they have asked for £81m (£105m in outturn prices) representing 50% of their share of the costs of the common collaborative programme.

	<u>Westland Estimate</u>		<u>MOD Estimate</u>	
	<u>UK Costs</u>	<u>Westland share</u>	<u>UK Costs</u>	<u>Westland Share</u>
	£m 6/82	£m 6/82	£m 6/82(9/82)	£m 6/82(9/82)
Development	208	40	345* (352.7)	51 (52.2)
Production Investment	25	25	70* (71.5)	37 (37.5)
Other non-recurring costs	82	82	80 (81.6)	80 (81.6)
Total	315	162 /	495* 343 (505.8)	168 (171.5)
MOD total including block contingency			575* (586.2)	195 (199.1)
MOD total including block contingency but <u>less</u> RN specific costs			411.4 (419.6)	195 (199.1)

/ including 10% contingency

* figure includes special to RN costs outside common collaborative programme

TOTAL INTEGRATED PROGRAMME COST SHARES (£M, 9/82 ECs VAT INCLUSIVE)

<u>DEVELOPMENT</u>	<u>UK</u>	<u>ITALY</u>	<u>TOTAL</u>
(i) Common basic and Common Naval & EMI costs	158.3	151.3	309.6
(ii) Commercial	44.8	44.8	89.6
(iii) RN/EMI Specific	149.6	77.7*	227.3
<u>Total Development</u>	<u>352.7</u>	<u>273.8</u>	<u>626.5</u>
 <u>PRODUCTION INVESTMENT</u>			
(i) Common basic and Common Naval (incl engine P.I.)	41.1	41.1	82.2
(ii) Commercial	13.3	13.3	26.6
(iii) RN/EMI Specific	17.1	18.7*	35.8
<u>Total P.I.</u>	<u>71.5</u>	<u>73.1</u>	<u>144.6</u>
<u>Totals for Development and Production Investment</u>	<u>424.2</u>	<u>346.9</u>	<u>771.1</u>
 OTHER WESTLAND NON-RECURRING COSTS			
	81.6		
Total	505.8		
TOTAL WITH BLOCK CONTINGENCY	586.2		

* These figures are very rough estimates, due to uncertainties about the EMI avionics fit.

Note Contingencies have been excluded in second and third columns because the Italian MOD has not yet finalised its view of the level of contingency to apply to the Italian element of the Naval programme.

BREAKDOWN OF UK COST SHARE (£M, 9/82ECs VAT Exclusive)

<u>DEVELOPMENT</u>	<u>MOD</u>	<u>INDUSTRY (DOI/WEL)</u>	<u>TOTAL</u>
(i) Common basic, Common Naval & EHI Costs.	150.9	7.4	158.3
(ii) Commercial	-	44.8	44.8
(iii) RN Specific	149.6	-	149.6
<u>Total Development</u>	<u>300.5</u>	<u>52.2</u>	<u>352.7</u>
Contingency on Development	48.0	*25.0	73.0
<u>Total Development, inclusive of Contingency</u>	<u>348.5</u>	<u>77.2</u>	<u>425.7</u>

*MOD Estimate-WEL's estimate is £15M.

With VAT added this figure is £393.5m.

PRODUCTION INVESTMENT

(i) Common basic and Common Naval	16.8	24.4	41.2
(ii) Commercial	-	13.3	13.3
(iii) RN Specific	17.0	-	17.0
<u>Total Production Investment</u>	<u>33.8</u>	<u>37.7</u>	<u>71.5</u>
Contingency on Production Investment	4.8	2.6	7.4
<u>Total Production Investment, inclusive of Contingency</u>	<u>38.6</u>	<u>40.3</u>	<u>78.9</u>

OTHER NON-RECURRING COSTS

(i) Learning	-	25.5	25.5
(ii) Plant and Equipment	-	17.3	17.3
(iii) Marketing	-	18.4	18.4
(IV) Maturity Development	-	20.4	20.4
<u>Total other non-recurring costs</u>	<u>-</u>	<u>81.6</u>	<u>81.6</u>

TOTALS FOR DEVELOPMENT, PRODUCTION INVESTMENT AND OTHER NON-RECURRING COSTS (Incl Contingencies)

	<u>387.1</u>	<u>199.1</u>	<u>586.2</u>
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	220.5	100.1	419.6
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EH101 WESTLAND CASE FOR LAUNCH AID SUPPORT

WESTLAND'S STRATEGY

Westland Helicopters Limited took a conscious decision in 1978 to move into the civil helicopter manufacturing field. The decision was prompted by a realisation that their existing range of military aircraft was ageing and that they would be faced with a rundown of defence orders towards the end of the present decade. Exploiting the civil market was therefore calculated to secure the company's future in terms of balance and growth; to improve financial performance; and to provide better employment prospects.

2. On their own initiative and using their own resources Westland immediately set about developing their own civil helicopter (WG 30 - Series 100) albeit based on military Lynx technology. The first few of these aircraft have already gone into service. Westland are now pursuing -200 and -300 series developments of the WG 30 with launch aid support, agreed by Ministers in 1982 of £41m spread over four years.

3. The WG 30 and its developments are expected to provide Westland with a healthy workload in the medium term. But for the 1990s and thereafter Westland will need a new product to sustain their civil and military business and their proposal is to participate in the Anglo/Italian EH101 project to produce a helicopter in three main versions - civil; utility and naval. The project will serve to maintain a world class helicopter design and manufacturing capability in the UK and enable Westland inter alia to consolidate their position as civil aircraft manufacturers over the next decade. The EH101 will be developed on a collaborative basis through a joint company (EH Industries) with funding support from the Ministries of Defence and Industry Departments of both the UK and Italy. Westland will take responsibility for the civil programme; Agusta of Italy will develop the utility version; and the two companies will share in the naval programme. Development and production plans have been based on equal work shares between Agusta and Westland with a final assembly line in each company capable of producing 40 helicopters per year.

WIDER BENEFITS TO UK INDUSTRY

4. There will be a wider benefit to UK industry particularly in terms of equipment supply. The aim for the commercial helicopters will be to source components and equipment more or less equally between Italy and the UK, provided they are fully competitive in price, time-scale and quality with equivalent products obtainable abroad. Since some third country sourcing may be necessary the object will be to allow Westland and Agusta the maximum commercial flexibility consistent with giving the Italian and UK equipment industries a reasonable opportunity to secure business on an airframe programme which will have been fully funded by the two countries. Westland have estimated that the equipment buy in the UK over the production life of the project could be of the order of £1.5bn.

MARKET

5. Westland believe that sales prospects for the EH101 are good. Their 1982 forecast for orders of all variants of the helicopter by the year 2008 was 1050, split as between 136 for the RN and Italian Navy; 293 for naval export; 277 utility (mainly for overseas land-based military and para-military forces) and 345 civil. The Defence Sales Organisation estimate that military/naval EH101s in the range of 600-700 could be sold by the year 2008 which, at its upper end is in close agreement with the Westland total of 706 non-civil sales. DoI analysts however believe that Westland's civil sales forecast of 345 may be optimistic. Depending on engine availability (see para 8 below) DoI analysts have estimated sales of between 220 and 255 by the year 2008. Their lower forecast is based on the fact that the civil version of the EH101 is aimed primarily at the offshore oil and gas transport market the future trends of which are currently difficult to forecast and where prospects may not be as bright as Westland think.

6. The entry into service date of the EH101 is also critical. The Defence Sales Organisation perceive most military requirements arising in the 1990-2000 time frame and Westland have said that a delay of one year could cost 30% of their civil sales. This latter estimate is probably pessimistic but it is likely that at around the end of the century the EH101 will face competition from more technically advanced aircraft and it is important for all sales beyond 2000 that the EH101 should have established itself as early as possible in the market place.

7. Sensitivity analyses show however that even with sales significantly below 1982 estimates by the company the internal rate of return (IRR) to Westland on the project as a whole would still be of the order of 11% - 12% at an exchange rate of £ = \$1.60. (The IRR given in Westland's launch aid application was 13.4% based on an exchange rate of £ = \$1.80. At an exchange rate of £ = \$1.60 the base case in Westland's launch aid application would have shown an IRR of close to 16%). In aerospace terms an IRR in the region of 11% - 12% is good and it is certainly much better than the WG 30 launch aid application which was approved on the basis of an IRR of 8.3%. It is moreover well above the Treasury required rate of return on public sector projects of 5%.

TECHNICAL RISK

8. MoD have assessed the technical risk which, overall, they believe is relatively low. Much of the technology used in the airframe, the dynamics system as well as in the avionics has already been proved and demonstrated. The engines for the development phase are the American GE CT7-2A and CT7-6. These will provide sufficient power for most of the EH101's performance target although something larger such as the proposed GE CT7-8 or the Rolls-Royce RTM 322 will be required for some civil applications in extremely hot and high conditions. Until such an engine is available 10-15% of the aircraft's civil sales potential can not be realised. Even so sensitivity analyses indicate that the project should remain commercially viable.

*Westland have just adjusted their sales estimate in the light of the delayed start to the programme: just under 300 civil sales, with non-civil sales at just under 700.

CASE FOR LAUNCH AID

9. Westland have asked for assistance of £105m at outturn prices, payable on a front-loaded basis to equal the non-recurring costs incurred in the years 1983-1990. The figure of £105m represents 50% of the UK industry share of the total non-recurring costs of the common programme plus a contingency of 10%. The case for launch aid is based on the impact which the project would have, if unaided, upon the Group's balance sheet and profit and loss account. Westland contend that the profits available on both development and production, (which until 1980 were largely funded by the MoD to provide aircraft which met its specific military requirements), have not allowed any margin to finance private venture developments. Their ability to meet such PV costs out of their own resources will therefore depend on having a number of mature products yielding profit margins and generating a positive cashflow sufficient to support the development costs and initial investment required to bring new products to the market place. It was for that reason that launch aid was sought for and given in the WG 30 case and the company's view is that, if it is to evolve over the next decade into a civil helicopter manufacturer, the adverse consequences of heavy launch costs upon its profit record and balance sheet must in the meanwhile be mitigated by launch aid. The fact that a return on the investment could be achieved only over a very long period (the aircraft will not go into service until 1990 at the earliest) rules out the prospect of alternative private funding.

10. Westland believe that they will nonetheless have to raise an additional £50m of equity to strengthen their capital base and reduce gearing to acceptable proportions. It is likely that Westland will try to raise £25m of fresh equity this year and the remainder at a later date. But since making a loss in 1978 Westland have been viewed with caution by investors and by the financial press. Reestablishing investors confidence will only be achieved by the company establishing a steady and satisfactory level of profits and dividends. Westland's argument for launch aid is based on the view that, without assistance, their profits in the early years of the project would be insufficient to provide the necessary market confidence to raise the additional equity considered essential to reduce gearing from a level which otherwise would range between 75% and 111% during the years 1985-1991 inclusive. The company consider that launch aid as requested plus fresh equity would reduce maximum gearing to an acceptable 38% in 1986.

DOI VIEW OF LAUNCH AID CASE

11. The DoI accepts that Westland have made a good case for launch aid assistance but not at the level requested. The DoI's view is that launch aid in the region of 50% to 75% of the company's request (ie between £53m and £79m) would be sufficient to meet their needs. In particular the DoI believes that Westland's target gearing ratios are more conservative than necessary. An average of 50% with occasional peaks up to 75% would be acceptable. Because 50%-75% of the aid requested would facilitate a satisfactory level of profits throughout the period with broadly sustainable gearing ratios, it

was the DoI's proposal to MISC 25 that a figure for launch aid should be negotiated within that range. The object would be to negotiate the minimum launch aid acceptable to the company but sufficient to ensure that the project had a chance of success.

LEVIES

12. Westland have proposed a levy repayment of 3% on aircraft sales and 8% on spares over one-half of the total civil, utility and export naval sales. This postulates a return to DoI of 6.5% calculated at 2% real above the assumed 4½% rate of inflation. The precise levy rate will however be a matter for negotiation with the company first because the MoDs of both UK and Italy will wish to impose levies and second because levy will have to reflect the degree of risk borne by HMG. However, given that the project promises to achieve a good IRR the DoI believes that it would be reasonable to seek a real rate of return to DoI of 5% above the assumed rate of inflation. But care will have to be taken to ensure the total levy is not such as to price the helicopter out of the market. At the same time it will be necessary to ensure DoI's contribution to development costs are recovered.

MISC 25

13. The DoI presented the Westland launch aid case to the MISC 25 committee on 24 February. The committee noted that DEPC had approved the MoD case for proceeding with the military element of the programme and after detailed discussion accepted that the civil project had a sufficient prospect of viability for the Government to encourage Westland to proceed. The committee however thought that there were sufficient risks involved (ie market uncertainties and the fact that the return would only be achieved over a very long period during which the company's finances would otherwise be stretched) for the Government to consider offering launch-aid. The committee agreed that the Government's objective should be to secure levy payments at a level sufficient to provide a 5% real rate of return.

14. A majority of the committee thought that the Government should aim to agree launch aid in the region of 50-75 per cent of that sought by the company; and that the Government's opening offer should be launch aid of 50 per cent of the company's bid. The Treasury, however, was not convinced that launch aid on this scale could be justified, indicating a wish for the case for launch aid of around 25 per cent of that requested by the company to be explored further. Since it is important that the company has sufficient funds to carry through the programme successfully, DoI remains firmly of the opinion that funding in the region of £53m - £79m will be necessary to secure the successful outcome of the project for Westland. An offer of 25% would in DoI's view be inadequate in the light of the company's gearing and likely earnings trend over the development phase of the project.

FROM: P L GREGSON CB, DEPUTY SECRETARY

1. Mr Cole ✓ MR 1/8
2. Mr Selkirk
Defence



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LONDON SW1A 2AS

01-XXXXXXXX 233 8339

P.0973

Air Marshal Sir John Rogers KCB, CBE
Controller/Aircraft
Room 2171, Main Building
Ministry of Defence

1 March 1983

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Dear John,

EH101 HELICOPTER PROJECT

When MISC 25 met last week to discuss the EH101 helicopter project, it was left that the Cabinet Office would consider how the matter might most conveniently be taken forward at Ministerial level. I am now writing in response to that remit and, since there are both civil and military aspects to the project, I am doing so both on my own behalf as head of the economic secretariat and on behalf of my colleagues in the defence and overseas affairs secretariat here.

We consider that it would be premature to seek the Prime Minister's agreement to the inclusion of this project on the agenda of any of the Committees which she chairs (for example OD or E) until we have established whether there is some difference of view between Ministers which can only be resolved in this way and, if so, what that is.

We therefore suggest that the best way to move matters forward would be for the Secretary of State for Defence to write to the Chief Secretary, Treasury, with copies to the Prime Minister, other members of OD, the Secretary of State for Industry and Sir Robert Armstrong, seeking Treasury approval for the EH101 project in the defence context. The letter would of course need to draw attention to the civil launch aid proposal which the Department of Industry has in mind. The Secretary of State for Industry would then follow with a separate letter to the Chief Secretary, Treasury, copied similarly, which would seek approval for the civil launch aid proposal. We would look to the Chief Secretary, Treasury's reply or replies to make clear what difference of view there was at Ministerial level. In the light of that the Cabinet Office would be able to

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advise the Prime Minister whether Ministerial discussion was required in OD or E, depending on the subject matter. If such a discussion were to be required we would of course try to arrange for it to take place as soon as possible.

You and Mr Croft to whom I have spoken have indicated that you are happy to proceed in this way and we shall look to you to coordinate and despatch the letters from your respective Secretaries of State. I had earlier warned Ivan Wilson in the Treasury that, subject to your views, I would be writing to this effect.

I am sending copies of this letter to John Sparrow, CPRS, to Roy Croft, Industry, and to Arnold Lovell and Peter Kitcatt, Treasury.

Yours sincerely

Peter Gregson

P L GREGSON

3 blind copies:

1 1. Mr Facer
2. Mr Goodall o/r

2 1. Mr Buckley
2. Mr Moyes

③ 1. Mr Coles No 10
2. Mr Scholar "

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