

IN CONFIDENCE

Cite SKW



10 DOWNING STREET

LONDON SW1A 2AA

From the Principal Private Secretary

27 July 1988

Dear John,

LLOYD'S REGISTER HULL INQUIRY

I have shown the Prime Minister your letter of 25 July about the report of the Lloyd's Register Inquiry into Hull Forms for frigates and destroyers. The Prime Minister was interested to read of the outcome of this Inquiry and has noted the terms of your Secretary of State's Parliamentary Answer and letter to Lord Hill-Norton. Please continue to keep us in touch with important developments on this front.

I am sending copies of this letter to Jill Rutter (Chief Secretary's Office), Neil Thornton (Department of Trade and Industry) and Trevor Woolley (Cabinet Office).

Nigel Wicks

(N. L. WICKS)

John Colston, Esq.,
Ministry of Defence.

IN CONFIDENCE

M

cc *AD*
IN CONFIDENCE



MINISTRY OF DEFENCE

MAIN BUILDING WHITEHALL LONDON SW1A 2HB

Telephone 01-218 2111/3

MO 26/3/1/1L

28 July 1988

Pure Nonsense

*to see the latent
stage in this saga.*

N.C.U.

25.7

Dear Nigel,

LLOYD'S REGISTER HULL INQUIRY

The Defence Secretary has now considered the report of the Lloyd's Register Inquiry into Hull Forms for frigates and destroyers, a copy of which was sent to you with Ian Andrews' letter of 11th April. As you know, copies of the report were given to Lord Hill-Norton and to Mr Giles, and over the past three months they were both given - and have taken up - the opportunity to make representations as they wished.

Mr Younger considers that Lloyd's Register have conducted a professional, thorough and impartial inquiry. The representations made by Lord Hill-Norton and Mr Giles - to both of whom Mr Younger has given an unrestricted personal hearing - have not altered this conclusion. He therefore proposes to publish the report this coming Wednesday (27th July). He hopes to announce publication by means of Written Answers in both Houses; a copy of the text is attached.

Mr Giles has laid much stress on the effect which he fears publication of the report might have on his efforts to interest the US Navy in a Thorneycroft, Giles and Associates proposal for a task support ship. The Written Answer draws attention to the fact that the report deals only with destroyers and frigates, not other possible applications.

In our judgement, Mr Giles is most unlikely ever to acquiesce in any outcome other than one in his own favour; and it is not expected that he will let the Report's publication pass in silence. Mr Giles has also indicated that he would consider legal action if we proceeded with publication; we have taken legal advice and are confident that he has no prospect of success. Mr Younger is clear that Mr Giles has been given an extremely thorough and fair run for his money (and the taxpayer's - the Inquiry will have cost Defence Votes some £1-1.5 million).

Nigel Wicks Esq
10 Downing Street

IN CONFIDENCE



Mr Giles has made assertions of bias on the part of Lloyd's Register, and of improper collusion between them and the Ministry of Defence. No evidence has been offered for these assertions, and they are wholly untrue. Lord Hill-Norton accepts this, and has undertaken to say so publicly.

Mr Younger has also considered most carefully points made to him by Mr Giles in writing and by Mr Giles and a group of his advisers and supporters at a meeting held here on 30th June. Mr Giles provided no evidence that had not already been considered by the Inquiry, and nothing was said that would cause us to question the principal conclusion of the Lloyd's Register report - that the Thorneycroft, Giles and Associates Sirius hull form would cost more to build and to operate than a conventional destroyer or frigate and would offer no improvements in operational performance adequate to offset this.

There have also been extensive and detailed discussions between Lord Hill-Norton and Lloyd's Register of Shipping (LR), and Lord Hill-Norton and ourselves, about the conduct and conclusions of the report. At one point Lord Hill-Norton seemed close to accepting the conclusions of the report, but most recently he has asked for a substantial programme of further model and full-scale testing to be conducted as a condition of his support. This condition is undisguisedly a reflection of Mr Giles' own position. Neither we nor Lloyd's Register can see any valid technical requirement for further testing, and acceptance of this proposal would be tantamount to rejection of the report as it now stands. I attach a draft of a letter which Mr Younger proposes to send tomorrow telling Lord Hill-Norton that we are not prepared to follow such a course.

*Not kept
Done*

Mr Dunlop of the No 10 Policy Unit has been in touch with officials here and has asked to be kept informed of developments. If you agree you might like to pass him a copy of this letter, together with the attached summary of the report and brief on the Ministry of Defence's dealings with TGA over the past 14 years (neither document is for publication).

I am copying this letter, with copies of the report, to Jill Rutter (HM Treasury), Neil Thornton (Department of Trade and Industry), and to Trevor Woolley in Sir Robin Butler's office.

*Yours sincerely,
John Colston*

(J P COLSTON)
Private Secretary

25.11

LLOYD'S REGISTER HULL INQUIRY: PARLIAMENTARY ANSWER

In November 1986 I commissioned Lloyd's Register of Shipping to undertake a special inquiry into claims that the Sirius concept developed by Thornycroft, Giles and Associates could be the basis for destroyer and frigate designs offering cost and other advantages over conventional designs. Investigation of these claims had been urged by an unofficial committee chaired by Admiral of the Fleet Lord Hill-Norton.

2. I have today placed in the library of the House copies of the report of the inquiry, which was led by Mr H R MacLeod. The work has been professional, thorough and impartial, and especial care has been taken to give Thornycroft, Giles and Associates full opportunity both to give evidence and to comment on the report before publication. The report's main conclusion is that, for the Royal Navy's stated requirements in the destroyer and frigate roles, vessels based on the Sirius concept would cost more than conventional designs like the Type 23, without offering commensurate advantage in other ways. I accept this outcome.

3. The report was not required, and does not seek, to comment on the possible use of the Sirius concept in other applications.

DRAFT LETTER FROM THE SECRETARY OF STATE FOR DEFENCE TO
ADMIRAL OF THE FLEET LORD HILL-NORTON, GCB

HULL FORMS INQUIRY

I much valued the chance to hear at first hand on Monday last week your views on the position reached over the Inquiry into hull forms; and I am grateful for all the trouble you took. I write now to summarise how I see things, and what I have decided to do.

2. The report of your Committee in 1986 persuaded the Government to accept its main recommendation, that further investigation was needed of the Sirius design concept as against conventional ones. That investigation was commissioned from an independent and internationally-accepted professional body working to agreed terms of reference. Following lengthy and extensive work paid for from public funds, the Report of the Inquiry has now been delivered to me. Parliament has been led to expect its publication, and that must be - on initial presumption - the natural course. I could justify a different course only if I were persuaded that the work done was so flawed or incomplete that its central conclusion was seriously unreliable.

3. Mr Giles has been given an extensive hearing, facilitated by Lloyd's Register and my Department, in the work towards the findings of the report and since my receipt of the Report. At our meeting on Monday I understood you to propose that one further modest test should be undertaken for the final removal of doubt. It has however since become clear, from contacts between you and Michael Quinlan, and between his office and Mr Giles, that what is being sought is in fact a series of tests, with much to be debated about their conditions, setting and use - in effect a whole new phase of work to re-address matters at issue between Mr Giles and Lloyd's Register. Delay and expense quite aside, for me to accept this would be tantamount to the rejection of the Report as submitted to me. That, I am sure you will recognise, would be a grave step.

4. The main thrust of the further testing proposed would be to obtain new test data to replace directly data currently arrived at by Lloyd's Register calculation from existing trials data. You will however know that the Report finds the Sirius forms to be inferior to the Type 23, for the applications in question, by a wide margin; and that the Lloyd's Register calculation moreover made allowances favourable to Sirius forms in areas where a margin of uncertainty might exist. The new testing programme could invalidate the Report's central conclusion only if the new data thus yielded were to differ by very wide margins from those arrived at by the Inquiry's calculations. It is the professional view of Lloyd's Register, in which my own advisers fully concur, that there is no likelihood whatever that such a difference could emerge.

5. Against this background, it is clear to me that the only proper course for me is to publish the Report and to accept its conclusion. I intend to table a written answer in the Commons to that effect. (You will understand that I must ask you to regard that as confidential until the time. I am however writing now, in parallel, to Mr Giles to tell him).

6. What you yourself choose to say about the matter in Parliament or to the media is of course for your own decision. I am grateful for the clear declarations you made to me that you regard the Inquiry as having been conducted entirely properly and impartially, and that you would be saying so in public. As to substance, you will understand that I should have preferred - and would see as justified - a statement of acceptance of the main conclusion. If however, despite what I have said above, you still feel unable to take that course, I venture to suggest that you might consider - rather than give indications which might, by yielding impressions of positive disagreement or strong dissatisfaction, serve to prolong this matter unfruitfully - firmly declining to comment on the technical substance of the Report (as complex matter for experts) and concentrate on the fact that the prime concern of your Committee has now been met: the issue has been given extensive, careful and impartial investigation.

Pa Ce: A. Dunlop.

LLOYD'S REGISTER HULL INQUIRY: PARLIAMENTARY ANSWER

In November 1986 I commissioned Lloyd's Register of Shipping to undertake a special inquiry into claims that the Sirius concept developed by Thornycroft, Giles and Associates could be the basis for destroyer and frigate designs offering cost and other advantages over conventional designs. Investigation of these claims had been urged by an unofficial committee chaired by Admiral of the Fleet Lord Hill-Norton.

2. I have today placed in the library of the House copies of the report of the inquiry, which was led by Mr H R MacLeod. The work has been professional, thorough and impartial, and especial care has been taken to give Thornycroft, Giles and Associates full opportunity both to give evidence and to comment on the report before publication. The report's main conclusion is that, for the Royal Navy's stated requirements in the destroyer and frigate roles, vessels based on the Sirius concept would cost more than conventional designs like the Type 23, without offering commensurate advantage in other ways. I accept this outcome.

3. The report was not required, and does not seek, to comment on the possible use of the Sirius concept in other applications.

DRAFT LETTER FROM THE SECRETARY OF STATE FOR DEFENCE TO
ADMIRAL OF THE FLEET LORD HILL-NORTON, GCB

HULL FORMS INQUIRY

I much valued the chance to hear at first hand on Monday last week your views on the position reached over the Inquiry into hull forms; and I am grateful for all the trouble you took. I write now to summarise how I see things, and what I have decided to do.

2. The report of your Committee in 1986 persuaded the Government to accept its main recommendation, that further investigation was needed of the Sirius design concept as against conventional ones. That investigation was commissioned from an independent and internationally-accepted professional body working to agreed terms of reference. Following lengthy and extensive work paid for from public funds, the Report of the Inquiry has now been delivered to me. Parliament has been led to expect its publication, and that must be - on initial presumption - the natural course. I could justify a different course only if I were persuaded that the work done was so flawed or incomplete that its central conclusion was seriously unreliable.

3. Mr Giles has been given an extensive hearing, facilitated by Lloyd's Register and my Department, in the work towards the findings of the report and since my receipt of the Report. At our meeting on Monday I understood you to propose that one further modest test should be undertaken for the final removal of doubt. It has however since become clear, from contacts between you and Michael Quinlan, and between his office and Mr Giles, that what is being sought is in fact a series of tests, with much to be debated about their conditions, setting and use - in effect a whole new phase of work to re-address matters at issue between Mr Giles and Lloyd's Register. Delay and expense quite aside, for me to accept this would be tantamount to the rejection of the Report as submitted to me. That, I am sure you will recognise, would be a grave step.

4. The main thrust of the further testing proposed would be to obtain new test data to replace directly data currently arrived at by Lloyd's Register calculation from existing trials data. You will however know that the Report finds the Sirius forms to be inferior to the Type 23, for the applications in question, by a wide margin; and that the Lloyd's Register calculation moreover made allowances favourable to Sirius forms in areas where a margin of uncertainty might exist. The new testing programme could invalidate the Report's central conclusion only if the new data thus yielded were to differ by very wide margins from those arrived at by the Inquiry's calculations. It is the professional view of Lloyd's Register, in which my own advisers fully concur, that there is no likelihood whatever that such a difference could emerge.

5. Against this background, it is clear to me that the only proper course for me is to publish the Report and to accept its conclusion. I intend to table a written answer in the Commons to that effect. (You will understand that I must ask you to regard that as confidential until the time. I am however writing now, in parallel, to Mr Giles to tell him).

6. What you yourself choose to say about the matter in Parliament or to the media is of course for your own decision. I am grateful for the clear declarations you made to me that you regard the Inquiry as having been conducted entirely properly and impartially, and that you would be saying so in public. As to substance, you will understand that I should have preferred - and would see as justified - a statement of acceptance of the main conclusion. If however, despite what I have said above, you still feel unable to take that course, I venture to suggest that you might consider - rather than give indications which might, by yielding impressions of positive disagreement or strong dissatisfaction, serve to prolong this matter unfruitfully - firmly declining to comment on the technical substance of the Report (as complex matter for experts) and concentrate on the fact that the prime concern of your Committee has now been met: the issue has been given extensive, careful and impartial investigation.

Summary of Report

The Inquiry has concluded that the Sirius hull form concept advocated by TGA for the design of frigates and destroyers does not offer any advantage for the Royal Navy. In particular, they concluded that a frigate or destroyer based on this concept would cost more to build and to operate than a conventional frigate or destroyer meeting a specified requirement (Report page 8.7, Section 1.3).

2. In response to its terms of reference, which required it to "consider the advantages and disadvantages of the S90 hull form for the purposes of meeting the Naval Staff requirement (NSR7069) for an anti-submarine frigate", the Inquiry has assessed the S90 hull form (which was put forward by TGA to the MOD in 1983 to meet the Type 23 requirement) in relation to NSR 7069 and in comparison with the Type 23 developed by the MOD and Yarrow Shipbuilders Ltd to meet this NSR. The Inquiry have concluded that the S90 hull form, as embodied in the S102 design developed by the Inquiry to meet the spatial requirements of the NSR:

a. would require considerably more engine power to achieve the maximum required speed (a minimum increase of approximately 110% has been estimated) (Report page 8.4, paragraph 3 and page 6.13, Section 2.8). As the Inquiry have given the S102 every reasonable benefit of doubt and have not incorporated a number of margins which are normally included in the design of a ship, the additional required power which they have identified would probably be increased in a real design and build situation. (Report page 5.11, Section 6, page 6.11 Section 2.6 and page 8.3 paragraph 1).

b. would, even without the extra power necessary to achieve the required speeds,

i) cost more to build than the Type 23 (approximately 3% more) (Report page 6.104, Section 8.6 and page 8.5, paragraph 5).

ii) cost more to operate than the Type 23 (approximately 8% more) (Report page 6.119, Section 9.7 and page 8.6, paragraph 6)

iii) have a higher cost of ownership (building plus operating costs)

c) would, with sufficient power necessary to achieve the required speeds, have a total ownership cost of a minimum of 9% more than the Type 23 (Report page 6.112 and 8.5 paragraph 7). This means that the MOD could buy and operate 12 Type 23s for the cost of 11 S90 hull form based frigates (Report page 8.5. paragraph 7),

d) would not meet the specified noise levels. The effectiveness of the vessel as a towed array ASW frigate

(the primary operational requirement of the NSR) would, as a result, be severely impaired compared to that of the Type 23 (Report page 6.87, final paragraph and page 8.3, paragraph 1),

e) would, in all but head seas at high speeds, be either worse or not appreciably better than the Type 23 in terms of its sea keeping performance. Therefore, the Inquiry concluded that in overall terms the S90 hull form would present a less favourable seakeeping platform than the Type 23 (Report page 6.59 and 6.60 and page 8.4 paragraph 3),

f) all other performance characteristics (eg manoeuvrability intact and damaged stability) were judged to be of secondary importance to the points discussed above. Although the S90 hull form would have better manoeuvrability and possess a greater intact stability than the Type 23, the Type 23 meets the RN requirement for these characteristics and could, if required, be modified (at some cost) to enhance these characteristics if they were considered to be of primary importance (Report page 8.4, paragraph 3),

3. When the Inquiry discussed with TGA these findings, TGA responded by proposing a longer and thinner vessel based on their Sirius concept, designated S115. The Inquiry assessed this proposal in considerable depth and indicated that in terms of dimensions, overall performance and cost, the S115 represented a move towards the Type 23, although it would still not fulfill all the NSR requirements. The Inquiry concluded that the S115 would still cost more than the type 23 and would still not offer any overall advantage in terms of performance when compared with the Type 23 (Report page 7.16, section 3.10, page 8.6, section 1.2).

4. It follows that, even if the S115 were to be further modified to overcome the disadvantages indentified by the Inquiry, a vessel based on the Sirius concept would still cost more to build and to operate than conventional destroyer/frigate hull forms, primarily because it requires more engine power.

5. The Inquiry also found that there no indentifiable implications for the design of future frigates and destroyers arising from the Sirius design concept (Report page 8.9; Section 1.5) as far as LR were able to foresee likely roles and operational requirements. TGA claimed that their hull form would be capable of speeds well in excess of those attainable by the Type 23 and those which could be practically achieved by a conventional frigate hull form. The Inquiry concluded that the data on which these claims were based had been incorrectly interpreted and that for the speed range for which reliable data exists (up to about 45 knots) the Sirius hull form is considerably more resistful than a conventional frigate and would require substantially more power to achieve the same speed (Report page 7.19; Section 4.5 and page 8.9; Section 1.5)

6. the Inquiry also make the point that at higher speeds, other types of vessel (eg hydrofoils) may offer a better solution than displacement monohulls. (Report pages 7.19 and 8.10)

7. The Inquiry also concluded, inter alia, that the allegations made by TGA, and repeated in the Hill Norton Report, that the DSAC, YARD and certain members of the MOD made fundamental errors in their assessments of the S90 in 1983 were incorrect and are not substantiated by the evidence provided. Indeed, the Inquiry's findings accord with the conclusions reached in the three separate studies carried out at that time. (Report page 8.7 section 1.3).

The MOD and Thornycroft Giles

Mr Giles of Thornycroft Giles and Associates (TGA)* has been corresponding with various Ministers and MOD officials since about 1974. He has tried to persuade MOD to adopt his proposals for a patrol boats (Osprey) and, latterly, a larger Sirius/S90 frigate. These designs utilise a short/fat hull form, ie with a length to beam ratio of about 5:1, which although not dissimilar to other relatively small ships such as MCMVs and offshore patrol vessels, differs markedly from the hull forms conventionally adopted by leading maritime nations for larger vessels such as frigates. The claims by Mr Giles in respect of his particular hull form have varied in emphasis, but include superior hydrodynamic performance, versatility, spaciousness and low cost.

2. In the process of trying to convince MOD of the value of his proposals, Mr Giles has mounted a lengthy and skilful publicity campaign. He feels that MOD is unduly prejudiced against his Osprey/Sirius proposals, has criticised it unfairly and is unwilling to try out or to test a revolutionary new concept in ship design. MOD has, in fact, had considerable experience of operating vessels which have a relatively low length to breadth ratio (such as MCM vessels). MOD believes that it has taken exceptional measures to ensure that the TGA proposals have been given a fair and thorough assessment - far more than for any other private design, but could not justify diverting Defence money to develop the design any further. MOD has tried to refrain from public comment on TGA's proposals in case this should hinder their chances of obtaining overseas sales. A number of Ministers, MPs, industrialists etc have shown an active interest in this subject.

OSPREY

3. The proposal for a craft called the OSPREY first appeared in the technical press in 1976. This was based on TGA's AZTECA patrol craft, a number of which had been sold to Mexico by Associated British Tool Manufacturers (ABTM). In July 1976 Mr Giles wrote to MOD saying that the Osprey design was sufficiently developed for "thorough evaluation". MOD's conclusion was that, as a fairly small vessel more suited to operations of short duration in inshore waters (ie out to about 12 miles), the Osprey was not suitable for the RN requirement for vessels to conduct patrols out to 200 miles in the North Sea and Western Approaches in winter. In the event, MOD ordered the Island Class offshore patrol vessels from Hall Russell (HR), then part of BS, in 1975, with 2 more in 1977. This was followed with an order for 2 Castle Class (OPV2) from the same firm in 1980.

Hong Kong Patrol Craft

4. MOD suggested to Mr Giles that Osprey might be a suitable contender for an order for patrol craft for Hong Kong. TT Boats were one of the 6 UK firms invited in June 1978 to put forward design proposals. Before tenders for the design and build of the HKPC were invited in July 1980, TT Boats were informed that, as design agents, they would have to bid in association with a

* Other companies associated with TGA are TT Boats and Osprey Ltd

their High Court action (known as "the Osprey Will") for damages against BS and others arising from tank testing of a model of Osprey without permission and claiming that BS used the Osprey as a basis for the Hall Russell Peacock design for the Hong Kong Patrol Craft. MOD was only indirectly involved in this case, as the customer for the HKPC and because TGA alleged that BS passed the results of the model tests to MOD. This was denied, but MOD disclosed various documents to assist the parties to the case. The full terms of the settlement were not published but TGA accepted that the HKPC design was not based upon Osprey.

6. Morison In September 1987, in accordance with the terms of the unpublished settlement, Mr T Morison QC submitted a report (based on material disclosed during the Court case) to SofS on the procurement of the HKPC. This was highly critical of the Department. Mr Bryars (a retired DUS) was again (see para 12 below) engaged to investigate these allegations and he reported that he had found no substance in either of Mr Morison's main findings (that the HKPC competition was unfairly conducted and that Ministers were misled by officials)

S90

7. Use of the Sirius hull form (S90 - essentially an enlarged Osprey) for the Type 23 frigate was first proposed in April 1982, ie just before endorsement of the Staff Requirement. On 28 May 1982 Mr Giles submitted his "private proposal for the Type 23 frigate" to the MOD. British Aerospace Dynamics Group (BAeDG) and Freiderikshavn Vaerft (FV) of Denmark had been consulted in its preparation. In discussion with Mr Giles it was agreed that TGA would undertake further work to validate this proposal.

8. The results of this validation were assessed by MOD and by the independent consultants, YARD. Both reported unfavourably for the S90. A separate assessment was carried out by the Defence Scientific Advisory Council (DSAC) (although they did not have access to the results of TGA's validation).

9. In the event, USofS(DP) concluded:

"....that the shortcomings of the S90 against the requirements for the new ASW frigate are so fundamental that the Ministry of Defence would not be justified in supporting the development of the proposal".

and made a statement to the Press on 18 October 1983. A Parliamentary Answer followed on 1 November.

10. The main shortcomings of the S90 given in his statement may be summarised as:

MANAGEMENT IN CONFIDENCE

<u>Size</u>	would not be large enough to contain the weapons etc specified in the NSR.
<u>Power and Endurance</u>	did not have sufficient power to achieve the required speed; nor would it achieve the required endurance unless it carried substantially more fuel than envisaged.
<u>Noise</u>	fell far short of the underwater noise target (thus degrading the performance of towed array by an unacceptable margin)
<u>Stability and Survivability</u>	Would roll rapidly (to an unacceptable degree for safe helicopter operations) and could not survive damage from attack adequately.
<u>Programme</u>	Would not be in service until long after the Type 23 (because of time required to develop the design etc)
<u>Costs</u>	The (unproven) cost advantages would be so small as not to compensate for these major shortcomings.

OPV3

11. In 1983 TGA were amongst a number of companies invited to put forward proposals for balanced ship designs for an OPVIII within a upc range of £25 to £35m. TGA competed on an equal basis but put forward a proposal that offered less value for money than proposals from two other shipbuilders. In the event, the OPVIII did not secure a place in the forward programme and the proposals were shelved.

Subsequent Developments

12. Monckton In 1985 Mr Christopher Monckton, then of the No 10 Policy Unit, now working for the Evening Standard, undertook an enquiry on behalf of No 10 in the light of a mounting campaign in the press that MOD had not been treating Mr Giles' proposals for patrol craft and frigates fairly. Mr Monckton submitted a rather unusual "dossier" which contained a mixture of allegations of improper conduct by MOD during the competition for the HKPC, claims for the performance of the short/fat hull form and assertions that MOD had not reached the right decision in opting for the Type 23 rather than the S90. This was referred by the Prime Minister to PUS who instructed Mr Bryars to carry out an independent investigation. Mr Bryars reported in February 1986 giving the Department a clean bill of health. Mr Monckton has since written twice to No 10 alleging that MOD has unfairly influenced the outcome of the Inquiry.

13. Lord Hill Norton At about the same time Lord Hill Norton had formed a committee (comprised of Lord Strathcona (now Chairman of Aberdeen Shipbuilders, who now own Hall Russell) Prof R V Jones (former Scientific Adviser to various Government Departments), Dr Garwin (a US scientist). Mr Monckton reported that Sir Terence Conran (Habitat/Storehouse) was also a member.) which published a

report in May 1986 which strongly advocated adoption of the S90 proposal (on the basis of a vessel of some 2800 tonnes displacement at a claimed cost of £75m as compared to the 3500 tonne and £100m Type 23. The committee recommended that the Departments decision to proceed with the Type 23 instead of the S90 should be reviewed, whilst recognising that they lacked technical expertise.

14. Lloyd's Register Inquiry Professor Caldwell of Newcastle University agreed to chair an independent inquiry but subsequently resigned in the face of criticism from Mr Giles. With the agreement of Lord Hill Norton and Mr Giles, Mr MacLeod the Chairman of Lloyd's Register of Shipping (LR) undertook to conduct an Inquiry into hull forms for future destroyers and frigates.

15. MOD agreed that the Inquiry should fund TGA to further develop their ideas to the stage where the S90 could be more properly evaluated. Inquiry funds have also been used to enable a TGA representative to attend some model tests at MARIN in the Netherlands and MOD has given permission for the results of model tests and sea trials of the Southern Cross III (a TGA designed motor yacht commissioned by Mr Alan Bond of Australia) to be made available to Mr Giles and TGA have been allowed free use of the model to conduct their own tests. MOD has also paid for Mr Giles' supporters to attend meetings in the UK.

16. LR discussed their initial findings with TGA before completing their report (an opportunity not afforded to the MOD) and considered TGA's S115 proposal, produced as a result of those discussions. Mr Giles was given an advance copy of the report and has since been given every opportunity to produce new evidence.

Conclusion

17. Mr Giles has attracted a great deal of interest in his proposals which have received a thorough and detailed examination both by the MOD and independently (notably DSAC, YARD and now LR).





File Kb
cc 1705

10 DOWNING STREET

LONDON SW1A 2AA

From the Principal Private Secretary

11 May 1988

Thank you for your letter of 26 April.

Let me say straightaway that there is no truth whatever in the allegation that the Ministry of Defence has intervened in the Lloyd's Register Inquiry.

I understand that Lord Hill Norton is in contact with both Lloyd's Register and the Ministry and I think that they are the best channel for communications with him on these matters.

N. L. WICKS

The Honourable Christopher Monckton.

fl



MINISTRY OF DEFENCE
MAIN BUILDING WHITEHALL LONDON SW1A 2HB
Telephone 01-218 2111/3

MO 26/3/1L

*Pl type letter
for my sig.
N.*

10th May 1988

Dear Nigel,

LLOYD'S REGISTER HULL DESIGN INQUIRY

Thank you for your letter of 29th April, with which you enclosed another from Mr Christopher Monckton. We share your view that there would seem to be little point in your contacting Lord Hill Norton. Whether or not to reply to Mr Monckton is a fine point but, on balance, we feel that it would be unwise to let the accusation pass without a rebuttal; failure to deny it might be exploited by Mr Giles or his supporters at a later date.

I attach a draft reply on which you might draw.

[Signature]
[Signature]
(I C F ANDREWS)
Private Secretary

Nigel Wicks Esq
10 Downing Street



THESE ARE THE

THESE ARE THE

THESE ARE THE

DRAFT LETTER TO MR MONCKTON

Thank you for your letter of 26th April. ^{let me say strongly} ~~that~~ There is no truth
whatever in the allegation that the Ministry of Defence has
intervened in the Lloyd's Register Inquiry.

I understand that Lord Hill Norton is in contact with both
Lloyd's Register and the Ministry. ~~I see no need for me to speak to~~
~~him.~~

and I think that they
are the best channel for
communications with him on
these matters.

COY MUA



CFPS # (50)
File

10 DOWNING STREET

From the Principal Private Secretary

29 April 1988

LLOYD'S REGISTER HULL DESIGN INQUIRY

Christopher Monckton has now sent me the letter attached in response to mine of 21 April. As you will see, he suggests that I should speak to Lord Hill-Norton.

6/4/88
I am most reluctant to speak to Lord Hill-Norton on this matter; and am inclined simply to let Christopher's letter lie. But I should be grateful for your confirmation that this is the right course.

N. L. WICKS

Ian Andrews, Esq.,
Ministry of Defence.



File HK

10 DOWNING STREET

From the Principal Private Secretary

29 April 1988

Thank you for your letter of 26 April.
I will certainly ponder on your suggestion
that I should speak to Lord Hill-Norton.

N. L. WICKS

The Hon. Christopher Monckton

A handwritten signature in dark ink, appearing to be 'N. L. Wicks'.

CF9

R I C H M O N D : S U R R E Y : T W 1 0 6 D J
Telephone: 01-940 6528. 24-hour phone: 0860 399002

April 26, 1988.

Thank you for your letter of 21 April. Though neither the Prime Minister nor the Defence Secretary has intervened in the Lloyds inquiry, the MoD has. I foresee further trouble.

Yours sincerely,

CHRISTOPHER MONCKTON

N.L. Wicks, Esq.,
Principal Private Secretary to the Prime Minister,
10 Downing Street, London, SW1A 2AA.

1





File from AmX

CMO

10 DOWNING STREET

LONDON SW1A 2AA

From the Principal Private Secretary

21 April 1988

CF

Your letter to Sir Percy Cradock and its enclosures have been passed to me and I have been in contact with the Ministry of Defence.

I understand that they have written to Mr. Giles offering him the opportunity to see the report in advance of publication and giving him a reasonable time to make representations to the Defence Secretary, should he wish to do so. For understandable reasons, Mr. Younger will agree to let Mr. Giles have this special opportunity to see the report only if Mr. Giles undertakes not to disclose the contents to anyone else before it is published.

The conduct of the Inquiry itself is a matter for Lloyd's Register of Shipping and neither the Prime Minister nor the Defence Secretary has sought to intervene in any way.

N. L. WICKS

The Hon. Christopher Monckton

THIS IS A COPY. THE ORIGINAL IS
RETAINED UNDER SECTION 3 (4)
OF THE PUBLIC RECORDS ACT

Temporarily retained @Wayland 21/4/16

nb

19.11.
PRIME MINISTER

cc Professor Griffiths
Sir Percy Cradock

LLOYDS REGISTER HULL DESIGN INQUIRY

You will recall that after lobbying by Lord Hill-Norton, the MOD established an Inquiry, eventually carried out by Lloyds Register of Shipping, into the comparative advantages of traditional hull designs and the Sirius design of Thornycroft, Giles and Associates (TGA) - i.e. long, thin ships against short, fat ships.

With the
Duty
Unit.

Lloyds have now presented their almost inch thick report. The "firm conclusion" of their Inquiry is as follows:

We have made a very thorough assessment of the advantages and disadvantages of the S90 hull form and the associated Sirius design concept for the purposes of meeting the NSR 7096 for an anti-submarine warfare frigate. Arising from this assessment, the Inquiry can find no reason to disagree with the MOD's preference for the Type 23.

In reaching this overall conclusion, and wishing to avoid any possibility of an unfair penalty accruing to the Sirius hull form due to the unfinished state of the designs considered, we have consistently, throughout our investigations, assigned every reasonable benefit of doubt to the Sirius concept. We have assumed, for example, the optimum trim conditions when calculating the speeds, although this has not been achieved in practice, and if it were to be achieved may still involve some other operational penalty. To counter the large rolling motions, it has been assumed that suitable roll damping devices are fitted, although no account has been taken of the implications of such devices on the speed and noise characteristics of the design. There are other similar instances. Our adverse conclusion with respect to the Sirius design concept as embodied in the S102 and S115 must therefore be considered as the most optimistic view

with respect to the suitability of such a design for the current ASW frigate requirement.

The MOD hope to publish the Report by the end of this month. They have offered to let Mr. Giles have a copy in advance of publication if he undertakes not to disclose it before its publication.

You will remember that Christopher Monckton interested himself on the side of TGA, in this controversy. He has recently sent us a paper attacking the Inquiry. At Flag A are MOD's comments on Christopher's paper which is at Flag B. If you agree, I shall reply to Christopher on the lines of the letter at Flag C.

Agreed - It seems that Mr. Giles has done a very fair and thorough job.

N.C.W.

NIGEL WICKS
15 April 1988

EL3CRB



MINISTRY OF DEFENCE

MAIN BUILDING WHITEHALL LONDON SW1A 2HB

Telephone 01-218 2111/3

MO 26/3/1E

11 April 1988

Dear Nigel,

LLOYD'S REGISTER HULL DESIGN INQUIRY

Thank you for your letter of 29th March with which you enclosed papers from Mr Monckton about the Lloyd's Register Inquiry into hull forms.

I attach a background note on the current position together with a draft reply for you to send to Mr Monckton. As you will see from these attachments, we have written to Mr Giles offering him the opportunity to see the report before it is published and to make representations to the Defence Secretary if he so wishes. As the draft letter to Mr Monckton makes clear, we consider the proper channel of communication on these matters to be direct between Mr Giles and the Ministry of Defence, rather than through journalists who say that they are acting on behalf of others.

We hope to be in a position to publish the report by the end of this month and both we and Lloyd's Register are anxious to avoid premature disclosure of the contents of the report. A copy is enclosed for your information but I should be grateful if you would ensure that it is accorded the appropriate degree of protection prior to publication. I do not suggest that you should read it all, but I commend to you the introductory letter from Mr MacLeod.

(Signature)
(I C F ANDREWS)
Private Secretary

Nigel Wicks Esq
No 10 Downing Street

BACKGROUND NOTE

LLOYD'S REGISTER HULL DESIGN INQUIRY

1. Mr Monckton's paper makes a number of incorrect assertions. The report of the Lloyd's Register Inquiry has now been received in the MOD and it is now being studied. Our aim is to publish this as soon as we can, probably by the end of April.

2. We hope that, despite the recent attempts by Mr Giles and his supporters to question the competence of Lloyd's Register and their impartiality, the press and public will find the report sufficiently authoritative to bring the matter to a sensible conclusion.

3. Mr Monckton has made a number of incorrect assertions and allegations and our comments on these are set out below:

a. That MOD has exerted unfair pressure on LR - This is untrue. MOD made a detailed submission to the Inquiry on the points made in Lord Hill-Norton's paper, gave oral evidence, and answered LR's supplementary questions and requests for additional information. At no time has MOD sought to influence the outcome of the Inquiry, and we have left the conduct of the Inquiry to LR. LR were appointed because of their reputation for impartiality and competence and with the agreement of both Lord Hill-Norton and Mr Giles. MOD has been given no reason to doubt either their impartiality or their competence since.

b. Care of TGA's copyright information - LR have taken care to safeguard TGA's property and have asked Mr Giles to specify the material which should not be passed to the MOD.

c. Claims for the performance of the Sirius Hull form - These have been considered in great detail by the Inquiry for over a year and we are now studying the Inquiry's conclusions.

d. Alleged illegalities - MOD purchased the Hong Kong Patrol Craft (HKPC) in good faith from Hall Russell (then part of British Shipbuilders) and the order was won by them after a full and fair competition. TGA were advised well in advance of MOD's requirements but, of the two shipbuilders TGA advised us were prepared to offer Mr Giles' design, one withdrew during the competition and the other declined to tender. Whilst BS admitted that they had acted wrongly in testing an Osprey model without permission, they did not accept that the HKPC owed anything to Osprey. MOD were unaware that the testing had been carried out and were not in any way involved. MOD were not a

party to the legal action, but did assist both parties with the provision of copies of documents. MOD did not of course meet the legal costs of BS. The terms of the Out of Court settlement were confidential.

Mr Monckton visited Bath as part of a team from the No 10 Policy Unit to discuss the TGA designs and Mr Monckton subsequently produced a detailed paper making a number of allegations. These were investigated independently by Mr Bryars, a retired DUS. His subsequent report gave the Department a clean bill of health and a copy of his findings was passed to No 10.

e. LR Inquiry - LR have given Mr Giles every opportunity to substantiate his claims for the Sirius hull form. The Inquiry paid for him to develop his proposals into a design which more closely met the MOD's requirements for an ASW frigate, provided him with the results of tank testing and other studies carried out by or on behalf of the Inquiry, and consulted him on their tentative and broad findings before preparing their report. These arrangements were subject to the condition, which he accepted, that he would not publicise, or cause to be made public, any of the deliberations of the Inquiry until the report has been published. Mr Giles now seems to have broken that agreement.

Mr Monckton says that the Inquiry has refused to consider his "S115". This is a longer and thinner vessel than TGA's original proposal and, in their report, LR say that they have given it sufficient consideration to form a view and devote several pages of their report to the consideration of the S115.

LR have taken care to ensure that their main report does not contain any commercial in confidence information which should not be published and have respected TGA's request that they should not pass on to MOD certain information owned by the company.

Mr Giles has been informed that the report has been received by the MOD and, provided that he agrees not to make public or disclose to third parties the contents of the report prior to its publication, he has been given the opportunity to see it in advance of publication, and to have a reasonable time in which to make representations to the Defence Secretary, should he wish to do so. Arrangements have also been made for Lord Hill-Norton to see the report, subject to the same restrictions.

LR's costs for the Inquiry amount to about £1.3 million.

ELB CRC

DRAFT LETTER TO MR MONCKTON

LLOYD'S REGISTER HULL DESIGN INQUIRY

Your letter to Sir Percy Cradock and its enclosures have been passed to me and I have been in contact with the Ministry of Defence.

I understand that they have written to Mr Giles offering him the opportunity to see the report in advance of publication and giving him a reasonable time to make representations to the Defence Secretary, should he wish to do so. ^{For understandable reasons} ~~Naturally~~, Mr Younger will agree to let Mr Giles have this special opportunity to see the report only ^{ES} ~~if he is prepared to give an undertaking~~ not to disclose the contents to anyone else before it is published.

The conduct of the Inquiry itself is, ~~of course~~, a matter for Lloyd's Register of Shipping and neither the Prime Minister nor the Defence Secretary has sought to intervene in any way.

LOBASE

File



10 DOWNING STREET

LONDON SW1A 2AA

From the Principal Private Secretary

29 March 1988

SHORT FAT SHIPS

Christopher Monckton, formerly of the Policy Unit and now of the Evening Standard, has sent to Sir Percy Cradock, the Prime Minister's Foreign Affairs adviser, the papers attached about the short fat ships controversy. The papers take the form of a note to the Prime Minister covering copies of correspondence between solicitors and Lloyds Register of Shipping. I understand from Policy Unit that there might be some publicity regarding this approach to No. 10.

I should be grateful for advice on the response to be sent to Mr. Monckton, together with a background note on the position of the Lloyds Register inquiry into this matter and on Mr. Monckton's allegations. I have not yet shown the Prime Minister these papers, but may wish to do so in view of her previous interest in this matter. I assume that any reply to Mr. Monckton will be a Private Secretary letter.

Please could I have a draft reply by Tuesday 12 April.

N Bf.

N. L. WICKS

Ian Andrews, Esq.,
Ministry of Defence.

cc

MR WICKS

29th March 1988

The attached papers have been handed to me by Sir Percy Cradock. They were sent to him following a lunch he had with Christopher Monckton. If you feel it appropriate to pass them to the Prime Minister please do so.

Brian Griffiths

BRIAN GRIFFITHS

The long running saga of the short/fat ship has yet again surfaced. The attached note to the Prime Minister sets out the position. If you think it appropriate, please put the note through to her.

By way of background, the Lloyd's inquiry has been subjected to frequent pressure from the Ministry of Defence, which has gone to some extraordinary lengths to prevent acceptance of the Thornycroft Giles Hull design for warships. Nonetheless, the inquiry has found that in most material respects the design is capable of performing as the inventor had claimed.

However, Lloyd's Register are unwilling to give full consideration to a version of the Giles Hull form that is capable of meeting the Naval staff requirement for the Type 23 frigate. The inventor is rightly upset about this and is also worried that the report of the inquiry may contain data which he would rather keep from the Ministry of Defence at this stage in view of their past breach of his copyright in collaboration with British Shipbuilders.

If you are able to persuade Lloyd's not to submit their report to the Ministry of Defence until Lord Hill-Norton returns from holiday and is able to speak to the Prime Minister, I should be grateful.

I continue to think that the strategic importance of this hull design may be much greater than the Ministry of Defence is willing to admit. Some time ago, I briefed Fred Ikle at the Pentagon on the possibilities and the U.S. Navy are about to embark upon a major study of the potential of the design, not only as a fast frigate for detection of Soviet submarines by active sonar but also as a resupply vessel to remove men and materiel from the U.S. to Europe at high

speed.

Over to you.

With all good wishes,

Yours ever,

Christopher.

CHRISTOPHER MONCKTON

Sir Percy Cradock, GCMG,
10 Downing Street,
London SW1.

H U L L F O R M S F O R W A R S H I P S

Mr. David Giles, of Thornycroft, Giles & Associates, has asked me to appeal to you for assistance in the closing stages of the official inquiry into his "short/fat" hull design for warships which you set up under Lloyds of London in 1986. He believes - in my view rightly - that he is not being treated fairly. There is now a real risk that this potentially excellent British invention, like too many others before it, will be exploited not in Britain but overseas.

The short/fat hull form

Thornycroft, Giles & Associates Ltd. are the inventors of a new hull-form which, they claim, combines the strength, stability, load-carrying capacity and construction economy of a short/fat commercial hull with the high speed/power ratio of a long/thin warship hull.

The Giles design reshapes the hull so as to induce hydrodynamic lift at high speed, counteracting much of the additional wave-making resistance which would otherwise arise even in the long/thin hulls which traditional warships use to reduce resistance.

The strategic advantages of such a hull-form would be considerable. For instance, a 115-metre frigate built to Giles' specifications would be cheaper to build than the Type 23 Frigate, but (with surprisingly little extra powering) could travel twice as fast. The primary purpose of a frigate (even a multi-role vessel like the Type 23) is to detect, pursue and destroy enemy submarines. Soviet submarines are capable of 45-50 knots submerged. The Type 23 can do 26-29 knots, which is far too slow. The Giles design can do 60 knots or more.

MoD's involvement in the unlawful use of the Giles design

In April 1982 Geoffrey Pattie, then Minister for Defence Procurement, invited Giles to join forces with British Aerospace to design a cheap stalking-horse for the Type 23 frigate design, then under development.

In 1983 the Defence Scientific Advisory Council rejected the proposed hull design as unsuitable, but in the meantime the MoD Ship Department (now Sea Systems Controllerate) at Bath had collaborated with British Shipbuilders to breach the Giles copyright and to incorporate certain key features of the design into the Peacock Class Hong Kong Patrol Craft (HKPC), which they were then developing. Bath's previous attempts to meet the tough speed/power specification for the HKPC had failed, but the Giles design, which was used without his consent and without payment to him, enabled the vessel to travel well in excess of the stipulated maximum speed.

In researching the HKPC hull-form, British Shipbuilders conducted 2,900 unlawful test runs on six models of the Giles design at the Vickers test tank at St. Albans, without the inventor's permission but with the knowledge and collaboration of Ship Department, Bath. It is possible that some of the huge cost of this unlawful testing was met from the budget of the Controller of the Navy. When Giles heard of the testing, he began a legal action against British Shipbuilders.

The Policy Unit investigated the matter in 1984 (David Pascall) and again in 1985/6 (Christopher Monckton), confirming the facts above. We recommended to you that, because Giles had been unjustly treated, his case should be immediately settled out of court, and that MoD should reconsider its flawed reasons for rejecting the design.

You then instructed the Secretary of State for Defence to investigate. In the subsequent internal inquiry the MoD exonerated itself, but it was curious that at no point did any of the MoD investigators approach the Policy Unit, which had supplied the information on the basis of which they had been asked to act.

Thornycroft Giles took British Shipbuilders to court and, in January 1987, won costs and damages amounting to £650,000 in a secret out-of-court settlement. The total cost to the taxpayer, after British Shipbuilders and MoD had met their heavy legal and discovery costs, was probably not less than £2 million. Much of this could have been averted had our original advice to settle quickly been taken.

Lord Hill-Norton's committee

In 1986 an informal committee under Lord Hill-Norton reported to you that a) contrary to MoD's assertions, there was an urgent strategic need for a cheaply-built surface ship capable of very high speeds with a comparatively low powering requirement; b) the Giles design might be suitable and deserved a fair assessment; c) the MoD's reasons for rejecting the Giles design were technically unsound and mathematically incorrect; d) there should be an independent, official inquiry into the suitability of the Giles hull-form for the Navy.

The Lloyds inquiry

In the spring of 1986, after a meeting with Lord Hill-Norton, you asked MoD to set up the independent inquiry which the Hill-Norton committee had recommended.

MoD, which has behaved unsatisfactorily throughout this affair, at first attempted to appoint as head of the inquiry Professor Caldwell, the chairman of a subsidiary of British Shipbuilders which had been closely involved in the unlawful testing of the Giles design in collaboration with Ship Department, Bath. You rightly intervened at the Policy Unit's instigation, and the Professor at once resigned "for personal reasons". There was no suggestion that he would have allowed any bias to intrude: but his conflict of interest made it impossible for him to remain in post.

You did
not,
No? handled
it.

No? did You then appointed Lloyds Register of Shipping to conduct the inquiry, which has been at work ever since and is now due to report.

The chief task of the Inquiry was "to consider the advantages and disadvantages of the S90 hull form for the purpose of meeting the Naval Staff Requirement (NSR 9069) for an anti-submarine frigate insofar as the current state of development of the S90 permits."

Though the S90 was not designed to meet the NSR, Thornycroft Giles have developed it, in co-operation with Lloyds, into a larger variant, the S115, which meets the NSR and, as Lloyds accept, is in some ways superior to the Type 23 design now being built at Yarrows.

The S115, being shorter and wider than the Type 23, could be built in smaller privatised yards at lower cost than at Yarrows, making a 50-frigate Navy more achievable. It accordingly represents a threat to the future of the very costly, very slow and very late Type 23, which was designed by the MoD's Ship Department at Bath. Other Navies are no longer enthusiastic about slow frigates like the Type 23.

Thornycroft Giles fear that this is why the Inquiry, which acts under contract to MoD, has refused to consider the S115 design in any detail, even though it had originally commissioned Giles to develop the design. Instead, the Inquiry has decided to base its assessment on its own variant of the Giles design, the S102, which is merely a scaled-up S90 and cannot meet the NSR.

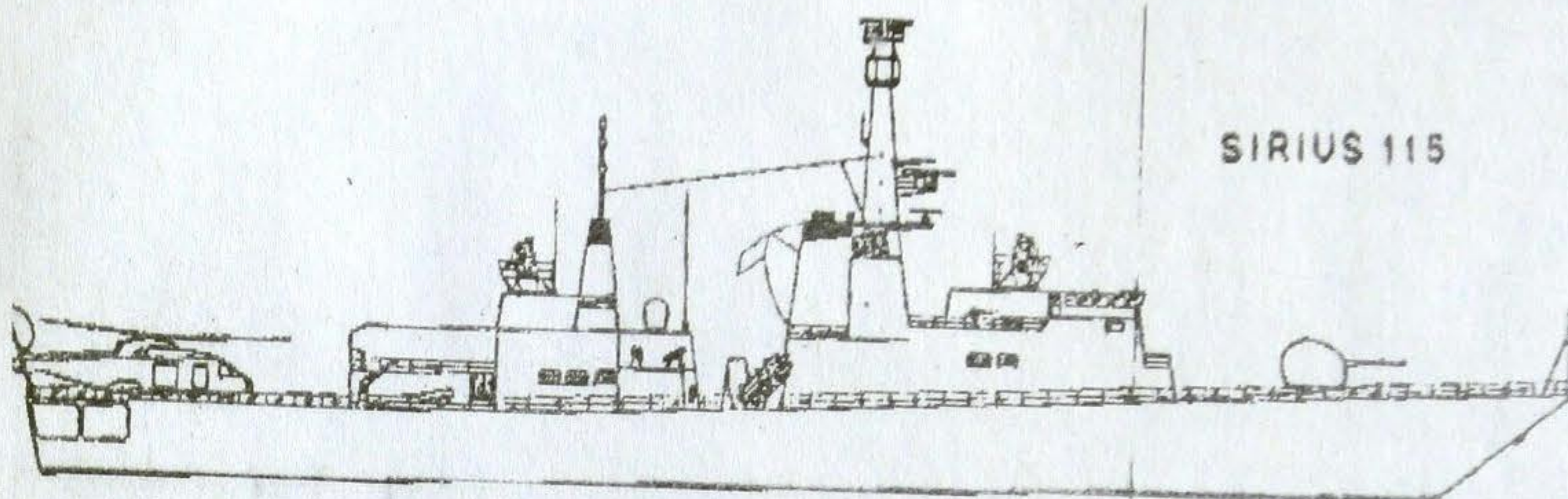
Thornycroft Giles would like you to intervene to persuade the Inquiry that it should give the S115 design as thorough an investigation as the S102. The Inquiry has refused to do this, and has also refused to give any reason for not doing it (see exchange of letters at Annex 1).

The Inquiry has also said it will not show its report to Thornycroft Giles before submitting it to MoD. Thornycroft Giles would like to see the report in advance for two reasons: first, they do not want their confidential research results to fall into MoD's hands, since MoD has already been closely associated with a breach of copyright relating to the Giles design; secondly, they want the chance to make representations before the report is finalised in case Lloyds have misunderstood or misinterpreted any of their data.

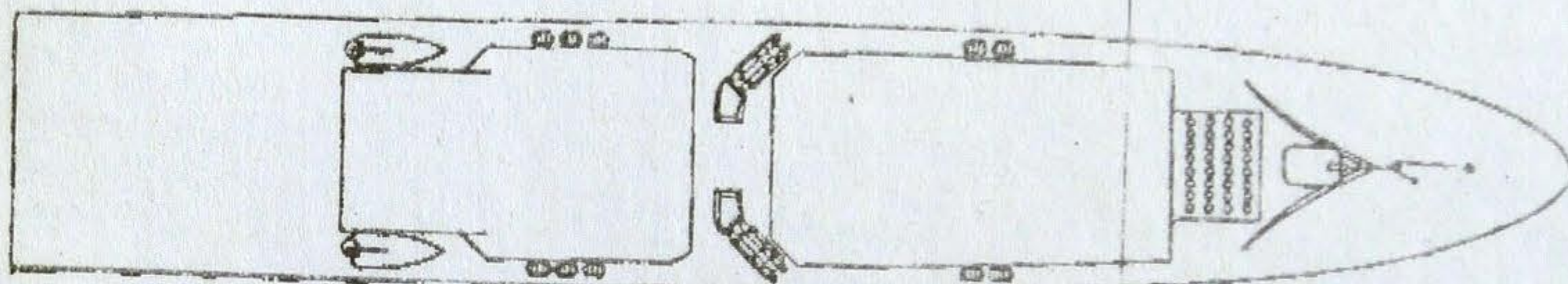
Both these requests are reasonable and, in the interests of a full and fair Inquiry, there can be no objection to them. Lord Hill-Norton, who is out of the country until April 3, fully supports Thornycroft Giles in making these requests and would welcome the chance to talk to you personally.

Agree to invite Lloyds Register to defer submission of their report to MoD until you have spoken to Lord Hill-Norton on his return?

THE SIRIUS 115 AND THE TYPE 23 FRIGATES



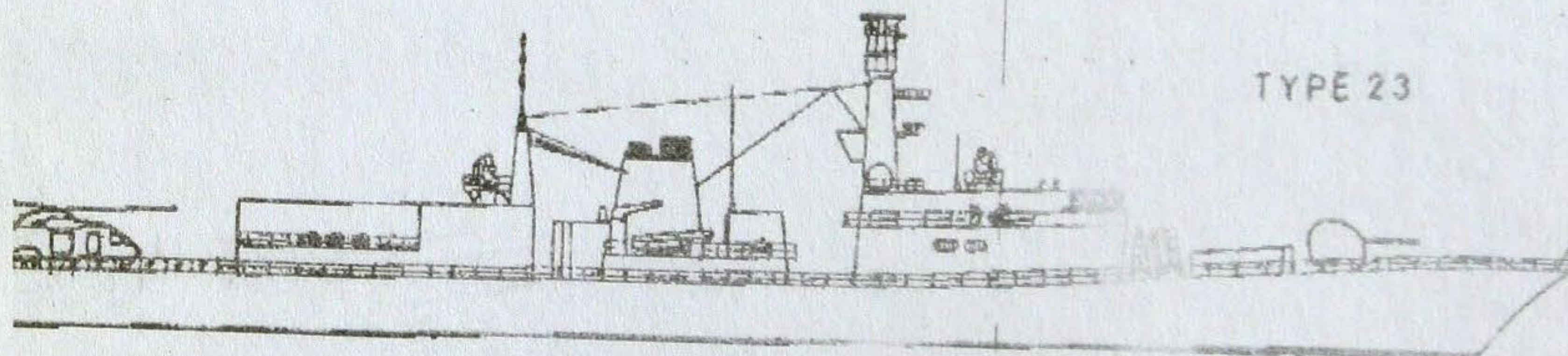
SIRIUS 115



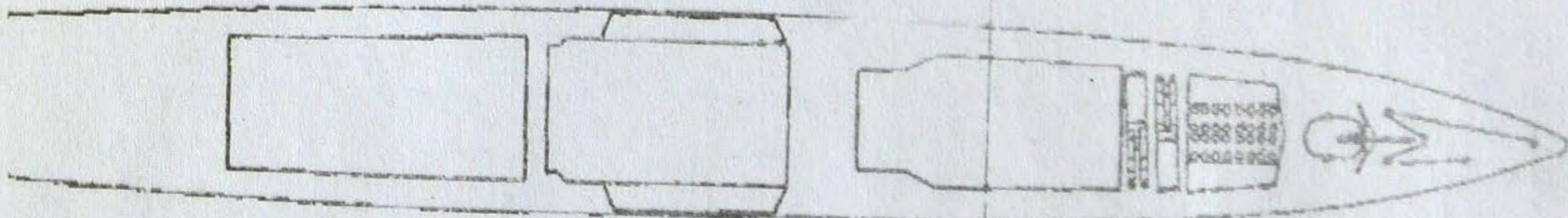
Sirius 115 Principal Particulars:

Displacement (full load)	about 4000t
Length (overall)	115.0m
Length (waterline)	103.6m
Beam (maximum)	20.00m
Beam (waterline)	18.00m
Depth	10.00m

Installed power	
Gas turbines (Spey SMIC)	2x18000kW
Electric motors	2x2040kW
Speed	about 28 knots
Endurance - normal	6500 miles at 18 knots
full fuel	11500 miles at 18 knots
Complement	167 + 4 (spare)



TYPE 23



Type 23 Principal Particulars:

Displacement (full load)	about 4000t
Length (overall)	133.0m
Length (waterline)	123.0m
Beam (maximum)	16.25m
Beam (waterline)	15.00m
Depth	8.92m

Installed power	
Gas turbines (Spey SM14)	2x14000kW
Electric motors	2x1300kW
Speed	about 28 knots
Endurance	7000 miles at 18 knots
Complement	157 + 20 (spare)

FROM

3.16.1988 11:05

P. 3

1988-03-15 16:29

LLOYD'S REGISTER LONDON

PRIVATE & CONFIDENTIAL

01 498 4796 P.02



Lloyd's Register of Shipping

71 Fenchurch Street, London, EC3M 4BS

Telephone 01-703 9108
Telex 888378

Cables Committee, London EC3
Fax 01-498 4798 (Op III)

Frere Cholmeley
28 Lincoln's Inn Fields
London
WC2A 3HH
Attn: Mr F.G. Presland

Our Ref HNCD/JGB/2583/1080

Your Ref FGP/RJC

Date 15th March 1988

Dear Sirs,

Hull Design Inquiry

Thank you for your letter dated 10th March 1988, in which you write that it is incumbent on the Inquiry to conduct a detailed assessment of the S115 design or at the very least to give clear reasons why it will not do so. Our Report will state our reasons for believing why we need make no further evaluation of the S115 design in order to discharge our terms of reference.

We have forwarded to the Secretary of State TGA's proposals contained in your letter dated 8th March 1988 to Elborne Mitchell. If your proposals are agreed, TGA will be able to see the Report at least fourteen days before the Secretary of State publishes it.

Yours faithfully,

J.G. Beaumont,
Chief Ship Surveyor.

Lloyds Register of Shipping

10th March 1988

3. In any event, to refuse to consider the S115 fully is perverse, since the Inquiry cannot then be said to be fulfilling its duties as defined by the Terms of Reference.
4. Our clients had been given to believe by the Inquiry that the S115 would be the subject of a detailed assessment if they could show substantial improvements over the shortcomings of the S102 in relation to the NSR and this they have done. Why else would the Inquiry have provided our clients with funds to undertake this study if this was not the case? If our clients had known that the Inquiry would adopt its current attitude they would not have acted to their detriment in expending their own time and money on the exercise in addition to the out-of-pocket expenses agreed with the Inquiry.

Please may we now hear from you with a full explanation for the Inquiry's decision. It may be that the only way in which this matter can be resolved would be for one final meeting between our respective clients to discuss the S115. In both these respects, we would ask that you write to us by close of business on Tuesday, 15th March 1988.

Yours faithfully,

Frederic Adeney

c.c. Elborne Mitchell

ANNEX I

3.16.1988 11:05

ANNEX I

FRERE CHOLMELEY

28 Lincoln's Inn Fields, London WC2A 3HH
Telephone: 01-405 7878
Fax: 01-405 9056/01-242 7724
Telex: 27623 Freres G
LDE: DX 140

Lloyd's Register of Shipping
71 Fenchurch Street
London
EC3M 4BS

Your Ref

HNCD/JGB/2383/ab

Our Ref FGP/RJC

10th March 1988

BY FAX

Dear Sirs,

Hull Design Inquiry

We refer to our letter to you of 26th February, 1988.

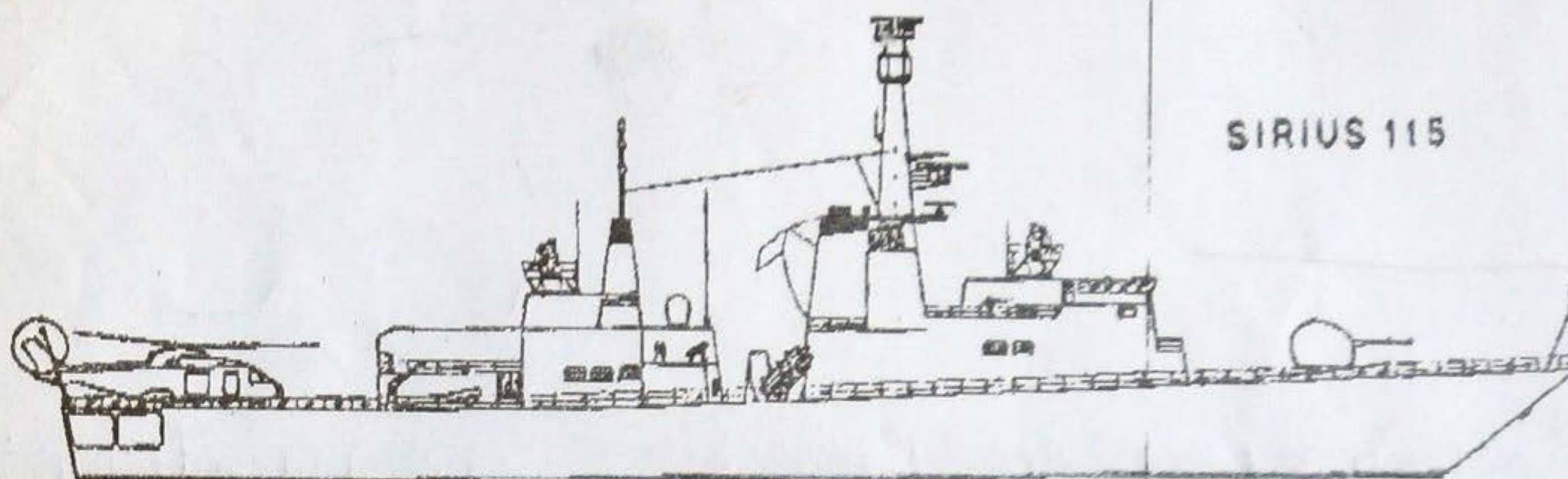
In that letter we asked the Inquiry for their reasons for refusing to conduct a detailed assessment of the S115 design, when by the Inquiry's own admission, it met all the significant requirements of the NSR 7069 with the debatable exception of speed.

We do not consider that your reply of 2nd March, 1988 constitutes a sufficiently reasoned response. It is not enough for the Inquiry to say that they will consider every point made by our clients on the S115 or that they will describe in general terms in their Report the ways in which the Inquiry consider the S115 to be superior to the S102 in relation to the NSR 7069. As we stated in our previous letter, in these circumstances it is incumbent on the Inquiry to conduct a detailed assessment of the S115 or at the very least to give clear reasons why it will not do so.

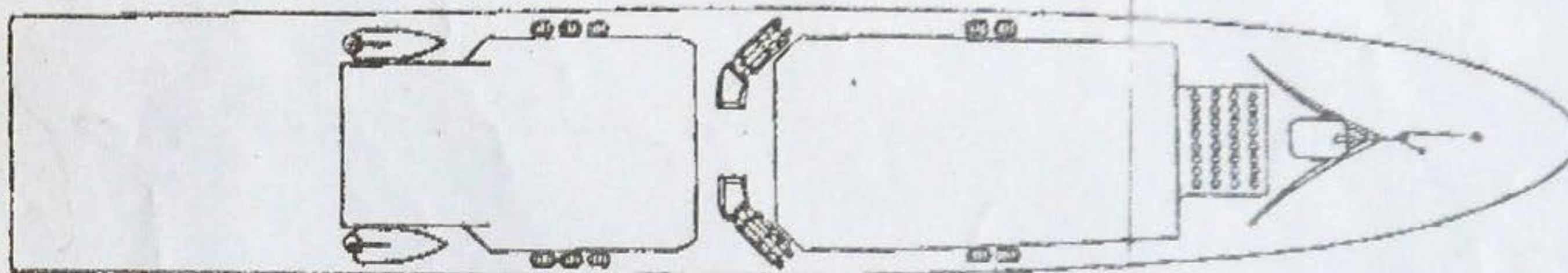
We have advised our clients that the Inquiry's approach may well be unlawful for four reasons:-

1. The Inquiry is obliged as a matter of public law to give full reasons for its refusal to deal fully and properly with the S115 design; so far no such reasons have been given.
2. In the absence of valid reasons a court may well conclude that the Inquiry is acting for bad reasons.

THE SIRIUS 115 AND THE TYPE 23 FRIGATES



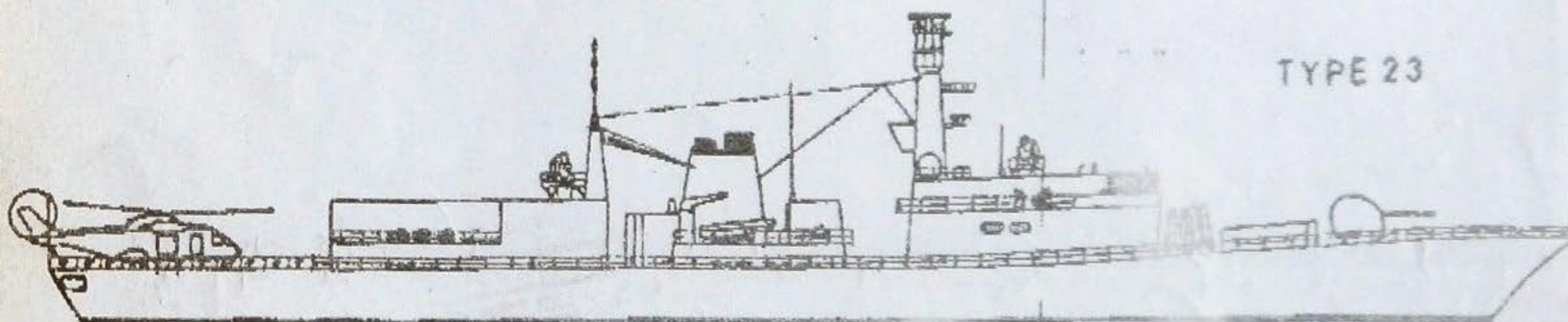
SIRIUS 115



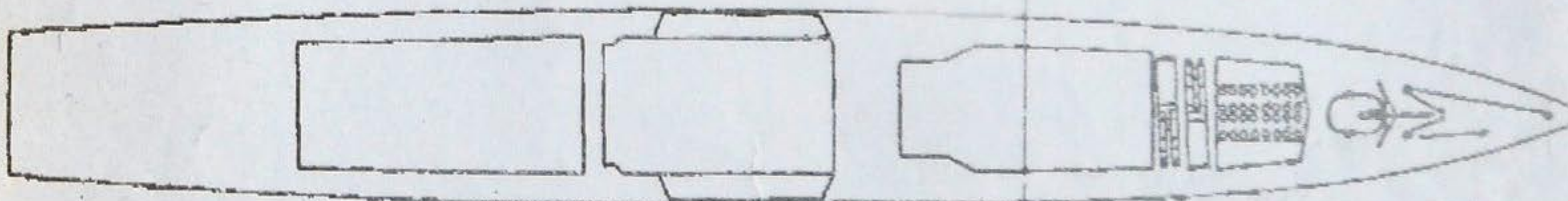
Sirius 115 Principal Particulars:

Displacement (full load)	about 4000t
Length (overall)	115.0m
Length (waterline)	103.6m
Beam (maximum)	20.00m
Beam (waterline)	18.00m
Depth	15.00m

Installed power	
Gas turbines (Spey SM1C)	2x18000kW
Electric motors	2x2040kW
Speed	about 28 knots
Endurance - normal	6500 miles at 18 knots
full fuel	11500 miles at 16 knots
Complement	167 + 4 (spare)



TYPE 23



Type 23 Principal Particulars:

Displacement (full load)	about 4000t
Length (overall)	133.0m
Length (waterline)	123.0m
Beam (maximum)	16.25m
Beam (waterline)	15.00m
Depth	8.92m

Installed power	
Gas turbines (Spey SM1A)	2x14000kW
Electric motors	2x1300kW
Speed	about 28 knots
Endurance	7000 miles at 16 knots
Complement	157 + 20 (spare)

FROM

1988-03-15 16:29

LLOYD'S REGISTER LONDON

3.16.1988 11:05

P. 3

PRIVATE & CONFIDENTIAL

01 488 4796 P.02



Lloyd's Register of Shipping

71 Fenchurch Street, London, EC3M 4BS

Telephone 01-709 9108
Telex 888375

Cables Committee, London EC3
Fax 01-488 4788 (Op III)

Frere Cholmeley
28 Lincoln's Inn Fields
London
WC2A 3HH
Attn: Mr F.G. Presland

Our Ref HNCD/JGB/2583/1080

Your Ref FGP/RJC

Date 15th March 1988

Dear Sirs,

Hull Design Inquiry

Thank you for your letter dated 10th March 1988, in which you write that it is incumbent on the Inquiry to conduct a detailed assessment of the S115 design or at the very least to give clear reasons why it will not do so. Our Report will state our reasons for believing why we need make no further evaluation of the S115 design in order to discharge our terms of reference.

We have forwarded to the Secretary of State TGA's proposals contained in your letter dated 8th March 1988 to Elborne Mitchell. If your proposals are agreed, TGA will be able to see the Report at least fourteen days before the Secretary of State publishes it.

Yours faithfully,

J.G. Beaumont,
Chief Ship Surveyor.

Lloyds Register of Shipping

10th March 1988

3. In any event, to refuse to consider the S115 fully is perverse, since the Inquiry cannot then be said to be fulfilling its duties as defined by the Terms of Reference.
4. Our clients had been given to believe by the Inquiry that the S115 would be the subject of a detailed assessment if they could show substantial improvements over the shortcomings of the S102 in relation to the NSR and this they have done. Why else would the Inquiry have provided our clients with funds to undertake this study if this was not the case? If our clients had known that the Inquiry would adopt its current attitude they would not have acted to their detriment in expending their own time and money on the exercise in addition to the out-of-pocket expenses agreed with the Inquiry.

Please may we now hear from you with a full explanation for the Inquiry's decision. It may be that the only way in which this matter can be resolved would be for one final meeting between our respective clients to discuss the S115. In both these respects, we would ask that you write to us by close of business on Tuesday, 15th March 1988.

Yours faithfully,

Frederic Colmeley

c.c. Elborne Mitchell

ANNEX I

3.16.1988 11:05

ANNEX I

≡ FRERE CHOLMELEY

28 Lincoln's Inn Fields, London WC2A 3HH

Telephone: 01 405 7878

Fax: 01 405 9056/01 242 7724

Telex: 27623 Freres G

LDE: DX 140

Lloyd's Register of Shipping
71 Fenchurch Street
London
EC3M 4BS

Your Ref

HNCD/JGB/2583/ab

Our Ref

FGP/RJC

10th March 1988

BY FAX

Dear Sirs,

Hull Design Inquiry

We refer to our letter to you of 26th February, 1988.

In that letter we asked the Inquiry for their reasons for refusing to conduct a detailed assessment of the S115 design, when by the Inquiry's own admission, it met all the significant requirements of the NSR 7069 with the debatable exception of speed.

We do not consider that your reply of 2nd March, 1988 constitutes a sufficiently reasoned response. It is not enough for the Inquiry to say that they will consider every point made by our clients on the S115 or that they will describe in general terms in their Report the ways in which the Inquiry consider the S115 to be superior to the S102 in relation to the NSR 7069. As we stated in our previous letter, in these circumstances it is incumbent on the Inquiry to conduct a detailed assessment of the S115 or at the very least to give clear reasons why it will not do so.

We have advised our clients that the Inquiry's approach may well be unlawful for four reasons:-

1. The Inquiry is obliged as a matter of public law to give full reasons for its refusal to deal fully and properly with the S115 design; so far no such reasons have been given.
2. In the absence of valid reasons a court may well conclude that the Inquiry is acting for bad reasons.



ccp
✓
②

MINISTRY OF DEFENCE WHITEHALL LONDON SW1A 2HB

TELEPHONE 01-218 9000
DIRECT DIALING 01-218 2111/3

MO 26/3/1V

5 August 1987

Dear Lord Hill-Norton,

Rose Smith

CDP
6/8

HULL DESIGN INQUIRY BY LLOYDS REGISTER

Thank you for your letter of 29th July about the Lloyd's Register inquiry into warship hull design.

David Trefgarne did indeed touch briefly on the inquiry with Mr Marr in the course of a more wide-ranging conversation on the warship programme generally. The one point he was concerned to make to Mr Marr was that while Ministers have a wholly open mind on the results of the inquiry by Lloyd's Register (otherwise there would have been no point in setting up the inquiry), the outcome could not affect the design of the Type 23 class of frigate, of which the first has of course been launched and the next three have been ordered; and that we shall necessarily continue with the Type 23 class for some time.

David Trefgarne did not go further than this. In particular, at no time in the conversation did he tell Mr Marr that the

Lord Hill-Norton



findings of the Lloyd's inquiry had been discounted either by the Department or by him personally. Indeed, for him to have done so would have been wholly inconsistent with the Government's position on the inquiry. As you know, I want Lloyd's to conduct a thorough and independent examination of the issues. This they are now doing, and the Ministry of Defence has co-operated with them fully and will give them any further help they may ask for. When Lloyd's report, I shall personally consider their findings. It is my hope - as I know it is yours - that, on the basis of the report, we shall be able to determine finally what is the best form of hull design for the future destroyers and frigates of the Royal Navy.

In short, my personal position and my Department's on the Lloyd's inquiry has not changed since I set it up, and I have asked my public relations staff to make this clear to the media. I hope that this sets your mind at rest.

I am sending copy of this letter to the Prime Minister and to Mr Roderick MacLeod, the Chairman of Lloyd's Register.

Yours sincerely,
George Younger
George Younger

Admiral of the Fleet The Lord Hill-Norton G.C.B.

Fordingbridge (0425) 52392

CASS COTTAGE,
HYDE,
FORDINGBRIDGE,
HAMPSHIRE. SP6 2QH

29th July, 1987

Personal & Confidential

The Rt. Hon. George Younger M.P.
Ministry of Defence, Main Building,
Whitehall,
London, SW1A 2HB.

Dear Secretary of State,

Hull Design Inquiry by Lloyds Register

My attention having been drawn to a piece by Mr. Andrew Marr in the Independent on 21st July, I asked him to amplify what he had written about the above Inquiry and, in particular, what lay behind his assertion that "..... Ministers now effectively consider the row dead".

In a lengthy discussion with Mr. Marr by telephone on 27th July he told me his article was based on a conversation with 'a senior Defence Minister' with whom he had been sitting at a recent Ministry luncheon for the Press, at which you had presided. He did not wish to name the Minister, but did not demur when I suggested that it was probably Lord Trefgarne.

Marr assured me that the Minister had said that Lloyds' Inquiry, whatever its findings later proved to be, had already been discounted by your Ministry, and by himself personally. The Minister went further in saying that the claims by the proponents of the short/fat concept, and the views of my Committee on them, had no substance and had been rejected. I found this so astounding that I pressed Mr. Marr hard to ensure that he had not misunderstood what the Minister had said to him. He stood firmly by this brief account, and has authorised me to quote him, in the above terms.

I am sure that you will agree that the matter cannot be allowed to rest there. The circumstances preceding the establishment of the Lloyds' Inquiry, and my correspondence with the Prime Minister and later Sir Clive Whitmore, make it impossible for me to do so. Indeed I understand that Mr. Marr has written a further article in his newspaper (though I have not seen it) which draws renewed attention to this lamentable démarche, and some implications of it. There is a real possibility, certainly in the 'silly season', that Press comment may get out of hand.

Continued/

cc Mr. Ingham

Prime Minister
to note

NLU
30.7

Personal & Confidential

The Rt. Hon. George Younger M.P.

29th July, 1987

If the 'Senior Minister' did speak as Marr alleges I shall not be alone in regarding it as disgraceful. If he did not, I must ask that you will give me a categorical assurance to that effect. In either event it is clearly necessary in these circumstances to reaffirm that you (and your Ministry) will stand by the findings of the Inquiry by Lloyds Register when these are reported to you. I should be greatly surprised if the Chairman of the Inquiry, to whom I am copying this letter, did not demand the same confirmation.

I am also copying this letter to the Prime Minister, who ordered the Inquiry to be set up, after considering the Report of my Committee.

Yours sincerely,

Heri-Norton.



2-2-87

10 DOWNING STREET

Prime Minister.

Thank you for latest
offering from Unsubopur
Manhattan.

BC

—

CONFIDENTIAL

BRIAN GRIFFITHS

SHORT FAT SHIPS

I thought you might like an update on this long-running saga. After almost seven years of delays by British Shipbuilders and the MoD, the case of the short fat ship finally reached the High Court on Monday. It was adjourned for 24 hours to give the parties a chance of a settlement and on Tuesday Counsel for the plaintiffs announced to the Court that the differences between the parties had been amicably settled and that no order for costs or damages was being sought. Behind this bland and uninformative statement lurks the fact that British Shipbuilders, the principal defendants, had agreed to pay the inventor of the short fat ship £650,000, of which about £400,000 was damages and the remainder was costs.

It is a great pity that our original recommendation of an immediate out-of-court settlement had not been adopted. With British Shipbuilders' own costs of £800,000, the total bill to the taxpayer for this scandalous case comes to well over £1,000,000.

The Labour Party will raise the question of the short fat ship in the Commons during the forthcoming debate on the Navy and, so that ministers may be forewarned, I am copying this note to George Younger.

As I understand it, the Labour Party will ask exactly what the cost to the taxpayer has been, why the advice of the Treasury Solicitor to settle this case was not taken very much earlier, and whether the MoD will now withdraw its objections to the feasibility of the design. As you know, I have good evidence that these objections arose chiefly from the MoD's own close and intimate involvement in the breach of copyright, unlawful testing of ship models and incorporation of key features of the short fat design in the Hong Kong patrol craft. MoD knew Osprey Ltd. had enough evidence to establish their complicity in the breach of copyright; so their only defence was to maintain that the design they had stolen was worthless.

Definite and complete evidence of the MoD's involvement is now available and will reach George Younger in due course.

I have long been puzzled that when, at our instigation, the M.O.D. agreed

Cont'd/...

CONFIDENTIAL

CONFIDENTIAL

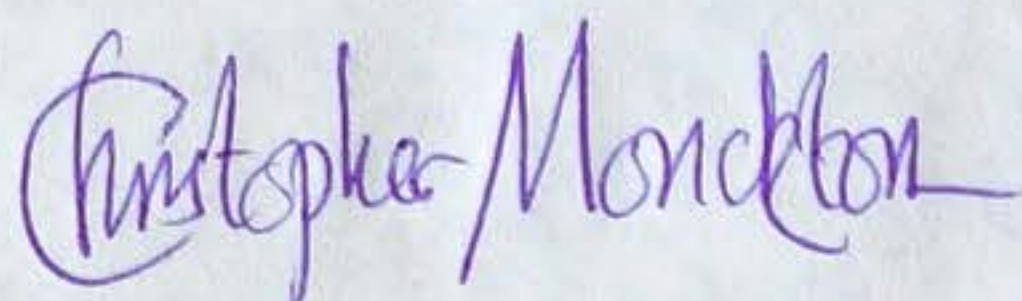
.../2

with enormous reluctance and bad grace to conduct an internal enquiry into its own involvement, the official appointed to the enquiry did not at any stage approach me to ask for the evidence which I had. It is now quite clear that that internal enquiry was little more than a disgraceful and now failed attempt at a whitewash and I trust that those responsible for engineering that whitewash will be decisively dealt with.

The single outstanding matter is the independent enquiry into the possible implications of the short fat design for the future development of the British surface fleet. You will remember that it was necessary to secure the resignation of the chairman whom the MoD had attempted to appoint to this enquiry because he had three separate conflicts of interest, one of which was his directorship of a British Shipbuilders' subsidiary. I am glad to say that Lloyds of London are now conducting this enquiry vigorously and with commendable impartiality. Lord Hill-Norton, whose unofficial committee first recommended that an official, independent enquiry be established, has told me that he is very pleased with the work that Lloyds are doing. Their activities had to be suspended during the case itself, but they are now proceeding rapidly with the Enquiry.

Expert witnesses of unquestioned authority and impartiality, both from the United States and Britain, have been consulted and if the Enquiry comes to the conclusion that the design is feasible, I hope that the MoD will have the good grace to make amends for its scandalous behaviour by agreeing to cooperate in the building of a full size prototype so that the Royal Navy can be the first in the world to take full advantage of what promises to be one of the more significant developments in marine science this century.

I am copying this note to Stephen Sherborne at Number 10 and to Peter Levene at the Procurement Executive. Copies also go to Sir Robert Armstrong and Clive Whitmore.



CHRISTOPHER MONCKTON

22 January 1987



GA
39
Ce PC
MOD

10 DOWNING STREET

From the Principal Private Secretary

15 October 1986

Thank you for your letter of 29 September enclosing one from Mr. S. Ullring, the President of Det norske Veritas in Oslo. I have drawn your letter to the attention of the Ministry of Defence.

It was helpful to have Mr. Ullring's offer of help in resolving the issues raised in the debate about hull forms for warships. This will certainly be borne in mind in settling the way forward on the Defence Secretary's inquiry into these matters. In the meantime, I want to thank you for your interest in this matter.

(N. L. WICKS)

Mr. P. Dahl-Nielsen.

ds



Pl type letter below N/T CF

MINISTRY OF DEFENCE

MAIN BUILDING WHITEHALL LONDON SW1

Telephone 01-930 7022

MO 26/3/1E

14th October 1986

Gen Ngu,

Thank you for your letter of 25th September enclosing one from Mr Per Dahl-Nielsen, which covered one from the President of Det norske Veritas offering to help us with the inquiry into hull forms for warships.

John Howe will shortly be writing to let you know the latest state of play on the Hill-Norton report and the hull form inquiry. You may wish to reply to Mr Dahl-Nielsen on the lines of the attached draft.

*CF: in view
of this perhaps
you should keep.
JLB/10*

Yours,

Sam Ball

(D C J BALL)
Private Secretary

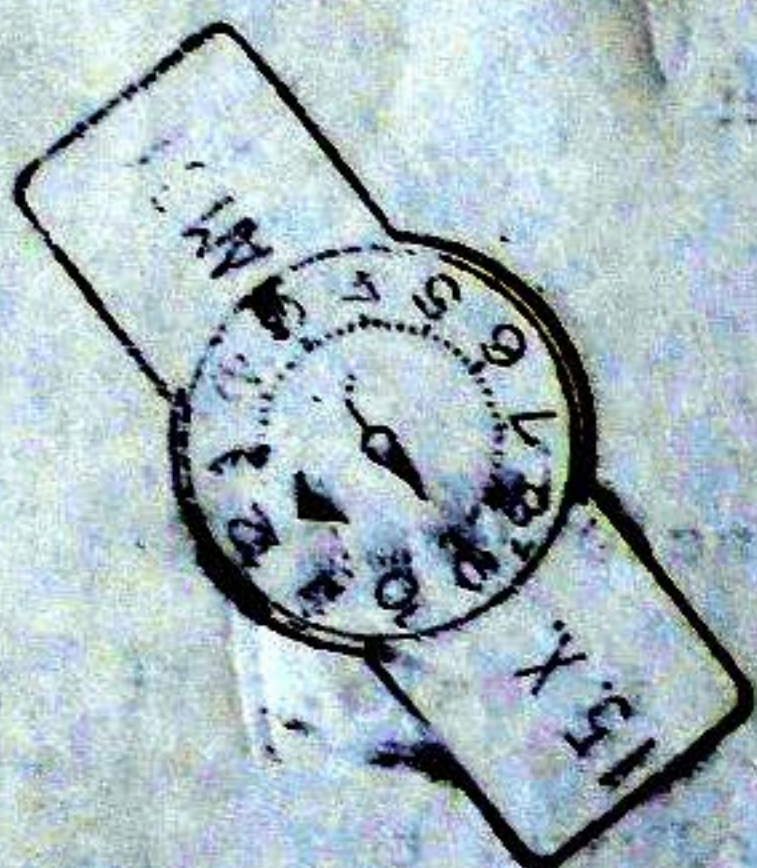
Nigel Wicks Esq
No 10 Downing Street

I have drawn your letter
to the attention of the
Ministry of Defence.

DRAFT LETTER FROM NO 10 TO MR DAHL-NIELSEN

of
Thank you for your letter dated 29th September enclosing one
from Mr S Ullring, the President of Det norske Veritas in Oslo. It
was helpful to have Mr Ullring's offer of help in resolving the
issues raised in the debate about hull forms for warships. *I hope this will certainly be borne in mind in*
settling the way The way
forward on the Defence Secretary's inquiry into these matters,
following the report by Lord Hill-Norton, will be decided shortly;
I want to in the meantime, thank you for your interest. *in this matter.*

39



CONFIDENTIAL



MINISTRY OF DEFENCE

MAIN BUILDING WHITEHALL LONDON SW1

Telephone 01-930 7022

MO 26/3/1E

Prime Minister 2

*to note the
arrangements now*

proposed for the enquiry.

14th October 1986

ml

Dear Nigel,

N.L.W

15.10

HULL FORMS FOR WARSHIPS: LORD HILL-NORTON'S REPORT

I wrote to you on 10th July (MO 26/3/1) about Professor Caldwell's resignation as chairman of the inquiry into hull forms for warships. Since then we have been considering other names; the problem was to find anyone else as well-qualified who would be prepared to conduct the inquiry, in view of the way that Professor Caldwell was treated and the risk that the same tactics might be used against any other chairman to whom the Giles party chose to take objection.

The solution we have found is to appoint Lloyd's Register (LR) to conduct this inquiry for the Secretary of State. LR is an expert body of recognised international standing from which shipowners are accustomed to seek advice. A contract placed with LR is therefore likely to provide a more effective examination of the key issues than the appointment of a lawyer (as the Hill-Norton report recommended) assisted presumably by assessors. Sir Clive Whitmore has therefore negotiated an understanding between LR and Lord Hill-Norton whereby Mr MacLeod as chairman of LR takes on the inquiry, consulting Lord Hill-Norton (as well as the Ministry of Defence) about the list of key issues to be examined; Lord Hill-Norton will give his public support to the appointment of LR, and will urge interested parties to co-operate with the inquiry. He has already spoken to Mr Giles to ensure that he is prepared to go along with this.

I enclose a note of the meeting with Lord Hill-Norton and Mr MacLeod at which the way forward was agreed. You will see that there has been a small amendment to the previously published terms of reference, at the request of both Lord Hill-Norton and Mr MacLeod, aimed at concentrating less on past decisions, more on the key technical issues in debate; however, the Royal Navy's requirement will remain the standard against which the claims of alternative hull-forms are judged.

N Wicks Esq
No 10 Downing Street

CONFIDENTIAL



We now have to make detailed arrangements with LR, including a suitable contract, and Lord Hill-Norton will be meeting Mr MacLeod again on 23rd October to discuss the list of key issues. In the meantime we have agreed that it would be premature to make an announcement about the appointment of LR to conduct the inquiry; it looks as if this will best be done by answer to an arranged PQ after both Houses have reassembled.

Yours sincerely,
John Howe.

(J F HOWE)
Private Secretary

CONFIDENTIAL

--

LORD HILL-NORTON'S REPORT

NOTE OF A MEETING BETWEEN SIR CLIVE WHITMORE, LORD HILL-NORTON
AND MR. MACLEOD ON TUESDAY 7 OCTOBER 1986

Present:

Sir Clive Whitmore

Lord Hill-Norton

Mr. MacLeod

Mr. Beaumont

Mr. Peters

Chairman

Chief Ship Surveyor

) Lloyds

) Register

) of Shipping

1. Sir Clive Whitmore said that following the resignation of Professor Caldwell as chairman of the inquiry into hull forms for warships, it had seemed best to approach Lloyd's Register (LR) to see if they would be prepared to take on the task. Mr. MacLeod had said that he was prepared to help, subject to acceptance by interested parties of LR as a suitable and impartial body for this purpose, and agreement on the key technical issues which the inquiry would address. The present meeting had been arranged so that Lord Hill-Norton and Mr. MacLeod could discuss these matters, and if possible agree on the way forward.

Suitability and Impartiality of LR

2. Lord Hill-Norton said it was essential that none of those directly involved in conducting the inquiry should be connected with interested parties; he accepted that LR was bound to have many contacts with these (e.g. British Shipbuilders, or YARD) in the normal course of business. Mr. MacLeod provided details of three respects in which LR might be considered to have had some previous connection with the hull form debate - he did not think that any of them were significant - and agreed to provide CVs for each member of the LR team to be employed in the inquiry; their selection would depend on the key technical issues for examination. Lord Hill-Norton said that on this basis he accepted that LR was fully qualified to conduct an impartial inquiry; and he realised it was essential, for protecting LR's international reputation, that interested parties should be prepared, as he would, to support in public their appointment to examine the issues.

Terms of Reference and Key Issues

3. Lord Hill-Norton and Mr. MacLeod said that the Terms of Reference so far published needed some adjustment to ensure that the inquiry concentrated on the key issues, and the possible future application of its findings, rather than on a review of past decisions; however, the Royal Navy's requirement

CONFIDENTIAL

should remain the standard against which the claims of alternative hull forms were judged. It was therefore agreed that the TOR for the inquiry should be:

"To consider the advantages and disadvantages of the S90 hull form as proposed to meet the naval staff requirement (NSR 7067) for an anti-submarine frigate, taking account of independent assessments made in 1983 by YARD and by the Marine Technology Board of the Defence Scientific Advisory Council, and of the Hill-Norton Committee Report 'Hull Forms for Warships' published in May 1986, and to identify any implications for the design of future destroyers and frigates for the RN."

As regards the key issues for review, Lord Hill-Norton said that he had aimed in his report to high-light the sort of matters most likely to repay attention (e.g. seakeeping, speed, the positioning of sensors) and he would be happy to discuss further with Mr. MacLeod on 23 October a list of key issues. Mr. MacLeod said that once this was settled - though no doubt other matters might emerge in the course of the inquiry - he would be better placed to decide how best to conduct the inquiry, and to invite evidence both in writing and orally.

TGA

4. Mr. MacLeod said he would be happier with some assurance that Mr. Giles like the other interested parties would cooperate with the appointment of LR to conduct the inquiry. Lord Hill-Norton said that he would speak to Mr. Giles to emphasise his own support for LR and the need to get on with the business. He pointed out that TGA's action in the High Court against British Shipbuilders was due to start in January 1987 and might last for six months; clearly it would be necessary to handle matters in such a way that no-one should be seen to gain from the results of the inquiry during the High Court action. It was agreed that the inquiry would work in private; it would be desirable to publish its final report in as full a form as possible, with any commercial-in-confidence or security-sensitive material in a separate confidential annex, but nothing should be published before the High Court action was complete.

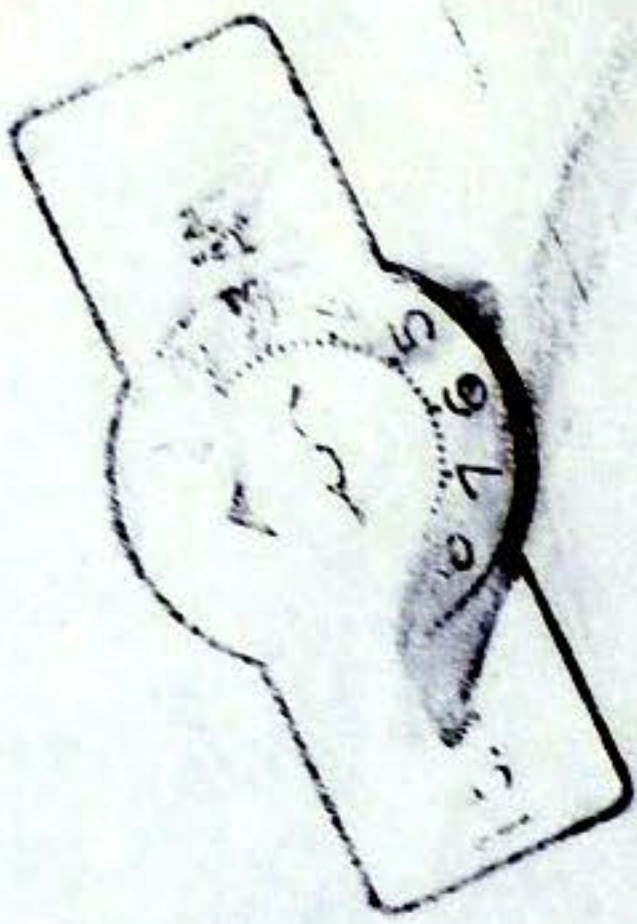
[Note Later Lord Hill-Norton spoke to Mr. Giles, who said he would have no objection to the appointment of LR to conduct the inquiry on the basis proposed; he had worked with them in the past and had a high opinion of their reputation and expertise.]

Public Announcement

5. It was agreed that no public announcement should be made before Lord Hill-Norton's further meeting with Mr. MacLeod; that suggested a reply to an arranged PQ once both Houses had reassembled. The terms of the statement would be agreed with Lord Hill-Norton and Mr. MacLeod; Lord Hill-Norton repeated that once it had been made, he would publicly support the appointment of LR and advise all concerned to cooperate with the inquiry and to refrain from any more public issues until the findings were published - after which he hoped that the debate would be closed.

CONFIDENTIAL

NAT. IND: Short Fat Ships: Nov. 1985



PART 1 ends:-

NW to MOD 29.9.86

PART 2 begins:-

MOD to NW 14.10.86