

February 1993

MINE WARFARE

Consolidation at Ingleside Has Not Been Justified



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United States
General Accounting Office
Washington, D.C. 20548

National Security and
International Affairs Division

B-246709

February 16, 1993

The Honorable Robert C. Byrd
Chairman, Committee on Appropriations
United States Senate

The Honorable Sam Nunn
Chairman, Committee on Armed Services
United States Senate

The Honorable William H. Natcher
Chairman, Committee on Appropriations
House of Representatives

The Honorable Ronald V. Dellums
Chairman, Committee on Armed Services
House of Representatives

In a December 1991 report, we recommended that the Secretary of the Navy delay plans to consolidate the Navy's mine warfare forces at Ingleside, Texas, until he provides a sound analysis for choosing that site.¹ Accordingly, in the fiscal year 1993 Defense Authorization Act, Congress directed the Secretary of the Navy to issue a detailed evaluation and analysis of the Navy's plan to locate the forces at Ingleside. In response, the Navy commissioned the Center for Naval Analysis (CNA) to study various options. CNA gave its report to the Navy in December 1992, and the Secretary of the Navy issued his report on January 15, 1993.

In his report to Congress, the Secretary continues to maintain that Ingleside is the most appropriate site for the consolidated forces. As directed by Congress in the Defense Authorization Act, we evaluated the Secretary's report. Specifically, we determined whether the report justified the Navy's decision to locate the forces at Ingleside.

Background

Mine warfare forces comprise helicopters, ships, and explosive ordnance detachments that neutralize mines. Operation Desert Storm revealed deficiencies in the Navy's mine warfare forces. It showed a need for centralized command and the joint training of ships, helicopters, and explosive ordnance disposal detachments. It also illustrated a lack of

¹Mine Warfare: Ingleside, Texas, May Not Be the Best Location for Consolidation (GAO/NSIAD-92-63, Dec. 27, 1991).

coordination between the integrated mine warfare forces and the combatant ships they were protecting.

As of January 1993, the Navy proposed consolidating the mine warfare forces by locating them at one port (Ingleside, Texas) so that the helicopters, ships, and explosive ordnance detachments could train together on a regular basis. If the Navy locates the forces at Ingleside, 23 ships, 5 helicopter squadrons,² and 4,610 military personnel would be stationed there.

Results in Brief

The Secretary of the Navy's report does not justify locating the forces at Ingleside. The CNA study estimates that moving to Ingleside is one of the costliest alternatives. The Secretary's report neither adequately challenges that estimation, nor addresses the fundamental need for mine warfare forces to train with the fleets they are to protect—a difficult task if Ingleside is selected. A draft National Academy of Sciences study directed by the Senate Committee on Armed Services noted that mine warfare forces need to be located with the fleets on both coasts. The draft stated that this is one of the numerous disadvantages of locating these forces at Ingleside. The Secretary's report stated that differences in cost are secondary in importance and cited a "highly desirable combination of considerations" to justify choosing Ingleside; however, most of these appear insignificant, unverifiable, or achievable at alternative sites. In fact, the Navy's failure to support its decision with compelling evidence that can override the cost factor and the fleet training issue suggests that Ingleside is not the best alternative.

CNA Estimates That Little Creek/Norfolk Would Be the Least Costly Site

In August 1992, the Navy commissioned CNA to study home port options for mine warfare forces. CNA estimated the costs of locating the forces under 13 different arrangements. Six were single-site arrangements, and seven were dual-site, East and West Coast combinations. The CNA study also identified various advantages and disadvantages posed by each alternative from the perspective of several operational and training factors. The study did not attempt to score or rank the various alternatives in terms of their relative contributions to operational or training effectiveness, nor did it look for differences in operating and support costs

²The five helicopter squadrons currently operate from bases in Virginia and California. Two Reserve squadrons located on the East and West coasts will probably not be moved to Ingleside, and the estimates in table 1 reflect this.

among the alternatives.³ In essence, the CNA study left investment cost differentials as the only quantitative basis on which to choose among the alternatives. The CNA estimates indicated that the lowest cost alternative would be to consolidate mine warfare forces at bases in the Norfolk, Virginia, area. The second lowest cost alternative was 65 percent higher and would have consolidated the forces at two sites, Norfolk on the East Coast and San Diego on the West Coast. In contrast, the lowest cost involving Ingleside was 225 percent higher than the Norfolk alternative.

Navy Cost Adjustments Are Questionable

The Navy challenged the feasibility of two CNA alternatives and removed them from consideration. The Navy also changed the investment cost estimates developed by CNA for 10 of the 11 other alternatives. The Navy increased the estimates substantially for most of the feasible alternatives except the two in the Ingleside area, which were reduced by an average of 21 percent. In effect, these adjustments substantially narrowed the range of single-site cost estimates and put most of the dual-site alternatives well above that. Table 1 contrasts the CNA and Navy estimates.

Table 1: Investment Costs of Locating Ships, Helicopter Squadrons, and Explosive Ordnance Detachments as Estimated by CNA and Adjusted by the Navy

Dollars in millions		
Alternative sites	CNA	Navy
Single sites: Ships/Squadrons		
Little Creek/Norfolk	\$31	\$88
Charleston/Air Force Base (AFB)	56	^a
Charleston/Marine Corps Base (MCB)	74	74
San Diego/North Island	74	211
Ingleside/Corpus Christi	101	86
Ingleside/Kingsville	118	86
Dual sites: East/West coast		
Little Creek/San Diego	51	123
Charleston-AFB/San Diego	70	^a
Mayport/San Diego	85	129
Mayport/Pearl Harbor	116	151
Charleston-MCB/San Diego	81	133
Little Creek/Pearl Harbor	84	147
Charleston-MCB/Pearl Harbor	113	147

^aSites considered not feasible and removed from consideration by the Navy.

³“Operating and support costs” refer to the expenditures required to sustain day-to-day activities of the mine warfare personnel and systems. Examples include military and civilian salaries, supplies, travel costs, and housing allowances.

The Secretary's report dismissed the CNA's estimates that Ingleside is the costliest single-site alternative. We question the validity of the Navy's conclusion because we found that the Navy adjustments to the CNA estimates were either unwarranted or inconsistent. Furthermore, the Navy adjustments did nothing to identify operating and support cost differentials that were not included in the CNA study. We think consideration of these differentials could significantly exacerbate the Ingleside cost disadvantage.

For example, the CNA report considered the Charleston Air Force Base as a possible site for part of the consolidated mine warfare forces. The Navy questioned the feasibility of locating the helicopter squadrons there because the base was being used by an Air National Guard interceptor squadron. However, the Navy apparently failed to consider plans to abandon the interceptor's continental air defense mission, which would permit the helicopter squadrons to operate there. These plans appear in the Joint Chiefs of Staff Roles, Missions, and Functions Report issued on February 10, 1993.

The Navy criticized CNA for using repair costs instead of replacement costs for helicopter hangers at another consolidated site, the Naval Air Station in Norfolk, Virginia. We found, however, that the Navy may have overlooked other possible alternatives. When we visited Norfolk, station officials told us that a large, relatively new hanger now occupied by the other Navy helicopter squadrons would soon be vacated and would be suitable for the mine warfare forces. This would obviate the need to replace the other hangers.

The Navy adjusted CNA's computations of family housing investment costs and used instead a cost comparison that depicted Ingleside as less expensive than most of the other sites. There was insufficient detail in the Navy's report to permit us to make a complete evaluation of the Navy's cost adjustments. Nevertheless, we noted that in lowering the Ingleside estimate, the Navy assumed that most lower grade enlisted personnel would be able to find affordable housing in private facilities off base, making it unnecessary to invest in new military housing. "Affordable" in this context meant that private housing could be purchased or leased for about what the personnel's housing allowances would amount to. Navy did not include this housing allowance cost in its analysis. On the other hand, the Navy assumed that in Little Creek/Norfolk, these personnel would have to be housed in new government-owned quarters because of the scarcity of affordable housing in that area, thereby adding housing

investment costs. Yet, in its report, CNA had projected a surplus of existing, on-base housing in Little Creek/Norfolk that would exceed by several times the projected increase in demand resulting from locating the centralized mine warfare forces in that area. The Navy report does not explain this disparity, and we were unable to satisfactorily resolve the matter in our discussions with Navy personnel.

The Navy's investment cost estimates are open to question, but they seem to indicate that locating the forces at Ingleside would not be among the lowest cost alternatives. Even if all the questionable factors that can influence investment costs were rectified, the evaluation would be incomplete without a comparison of operating and support costs for the several alternatives. Programmed costs of this nature for the fiscal year 1993-97 period exceed the investment cost estimates by at least an order of magnitude, and there is evidence that sizable differentials are being ignored. For example, larger expenditures for housing allowances seem likely in Ingleside where the absence of government-owned housing will force most military families to live off base. In Norfolk, virtually all military families can be housed on base.

Locating the Forces at Ingleside Could Compromise Integrated Training Exercises With the Fleet

In 1991, concerned about mine warfare weaknesses revealed during Operations Desert Shield and Storm, the Senate Committee on Armed Services requested that the National Academy of Sciences study the Navy's mine warfare activities. Academy officials believe that the mine warfare forces need to be located on both coasts with the fleets they are protecting. The Academy's draft report stated that training with the fleets—a pivotal factor arising from Operations Desert Shield and Storm—is one of the numerous disadvantages of locating the forces at a site, such as Ingleside, that is remote from fleet concentrations. The report is expected to be released in the spring of 1993.

We believe this issue needs to be more thoroughly considered before a consolidation alternative is selected, and we think that availability of the Academy's report will do much to advance that objective.

The Secretary's Report Is Based on Insignificant and Unsubstantiated Considerations

The Secretary's report concluded that differences in investment cost are secondary in importance to the more critical operational and training benefits that Ingleside offers. The Navy cites a "highly desirable combination of considerations" as a basis for its choice of Ingleside. There is no indication of the extent to which these considerations might enhance operational and training effectiveness, and our examination suggests that most of the considerations are insignificant, unsubstantiated, or achievable at alternative sites.

The Navy believes that a move to Ingleside would enable it to create a "center of excellence" for mine warfare forces. The Navy report seems to acknowledge that such a center could be established at alternative sites such as Charleston and Norfolk where significant mine warfare resources are already in place.

Another consideration that the Secretary cited was dedicated maintenance service for mine warfare forces. Mine warfare officials say that mine warfare ships do not receive priority when competing with combatant vessels for maintenance services at large fleet headquarters locations such as those in the Norfolk area. The mine warfare ships would share Ingleside's services with only three reserve frigates, and they would enjoy an almost exclusive maintenance facility. The report does not recognize, however, that because the Navy expects the total number of its ships to decrease, significant capacity in major Navy home ports may become available.

The Secretary's report cites a ready access to the Coastal Systems Station in Panama City, Florida, as another reason for locating the force at Ingleside. The Navy fails to show, however, why being close to this mine warfare research facility is important and why Ingleside offers a clear advantage. Mine warfare ships visit Panama City to assist in research projects or evaluate certain ship systems. Navy officials advised us that there was no analysis projecting a need for frequent visits to the center by a significant number of mine warfare ships.

The Secretary's report says that because Ingleside is located between the Atlantic and Pacific coasts, it is equidistant to forward-deployment areas and anticipated major regional conflicts. CNA studied this factor and concluded that Ingleside did not offer any distinct transit time advantage to conflicts. CNA noted that if rough weather became a factor, delays could be expected in loading the mine warfare ships onto heavy-lift ships in the Gulf of Mexico. In such cases, the mine warfare ships might have to go to a

protected port on the East or West Coast before they could be loaded, adding to the time needed to respond to a conflict.

The Secretary's report noted that excellent environmental factors—water depths, good weather, and water clarity—support the selection of Ingleside. Again, the Navy offered no study or evaluation to support the relationship of any of these factors to Ingleside or any alternative sites. Further, these qualities may not always exist at Ingleside. Mine warfare helicopter pilots told us that in recent exercises at Ingleside they experienced significant problems because of muddy water, inclement weather, and extremely shallow water depths. We were also told that currents in the area compromise the safety of divers responsible for disposing of certain kinds of mines.

Recommendation

Because the Secretary's report does not justify locating the mine warfare forces at Ingleside, we recommend that the Secretary of Defense direct the Secretary of the Navy to withhold implementation of such plans until (1) the National Academy of Sciences reports the results of its study and (2) the Navy reports a comparative evaluation and analysis of homeport alternatives, including consideration of operating and support cost differentials and relative effectiveness scores.


Scope and Methodology

We reviewed the Secretary of the Navy's January 15, 1993, report and appended report and analysis. We also visited the offices of the Chief of Naval Operations and the Naval Facilities Command in Washington, D.C.; the Commander, Mine Warfare Command, and the Commander, Fleet and Mine Warfare Training Center, in Charleston, South Carolina; the Commander in Chief of the Atlantic Fleet and the Mine Warfare Helicopter Squadrons in Norfolk, Virginia; Naval facilities in Ingleside and Corpus Christi, Texas; the Center for Naval Analysis in Alexandria, Virginia; and the National Academy of Sciences in Washington, D.C. We interviewed Navy mine warfare officers; enlisted persons in surface, helicopter, and explosive ordnance careers; and officials from the Department of Defense in Washington, D.C.

We also examined documentation related to the Secretary's report and the Navy's Mine Warfare Master Plan and reviewed the draft report of a study conducted by the National Academy of Sciences. We visited the Academy's offices to discuss the draft report.

Our review was conducted between January 19, 1993, and February 12, 1993, in accordance with generally accepted government auditing standards. Because of time constraints, we did not obtain written agency comments, but we discussed the issues in this report with Defense and Navy officials.

We are sending copies of this report to the Secretary of Defense, the Acting Secretary of the Navy, and other interested parties. We will also make copies of the report available to others upon request. Major contributors to this report are listed in appendix I.



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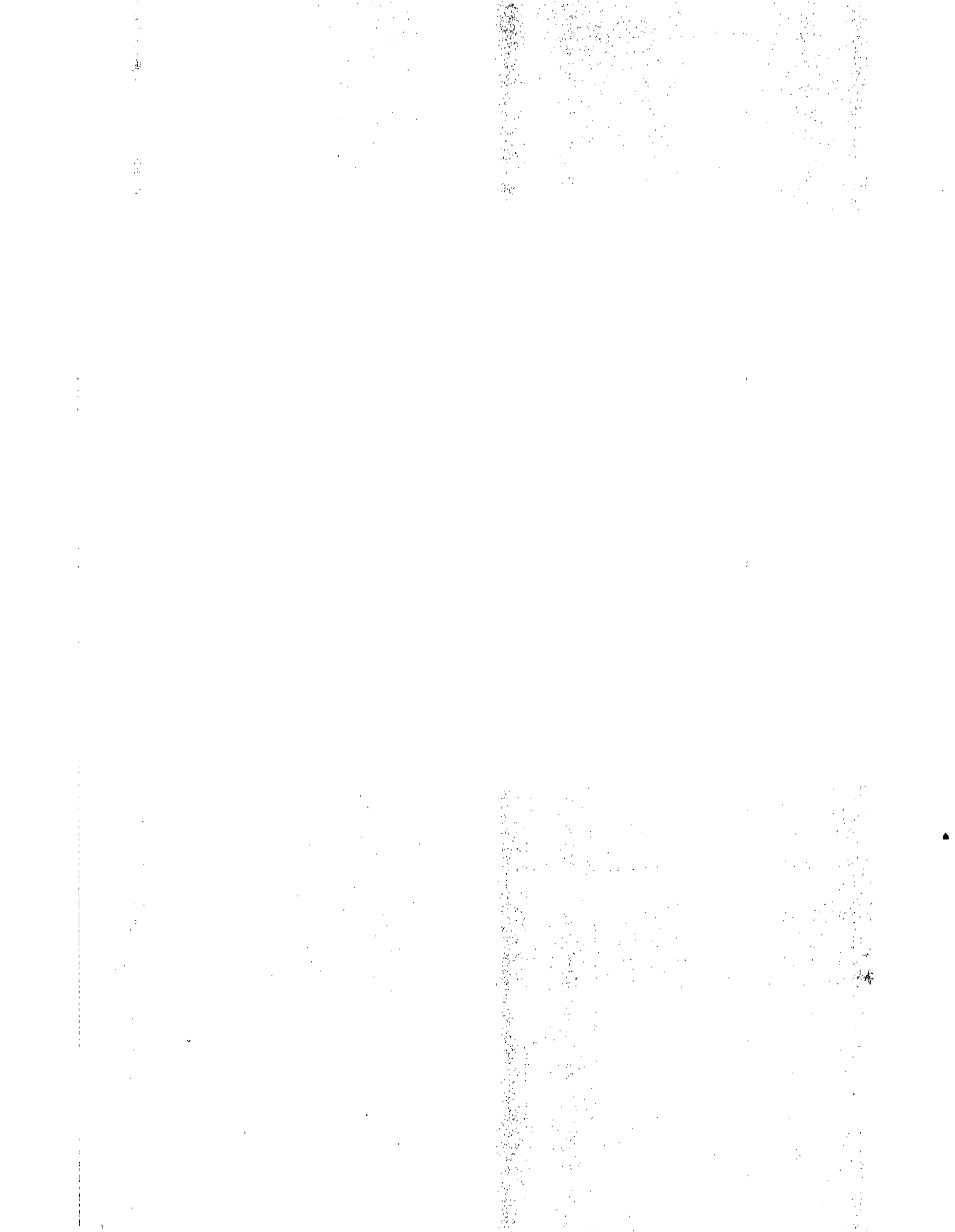
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