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Imagery analysis report

Chinese Naval Auxiliary Construction Programs (S)

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CHINESE NAVAL AUXILIARY CONSTRUCTION PROGRAMS (S)

INTRODUCTION

1. (TSR) This report presents an imagery-derived analysis of nine naval auxiliary construction programs in China from March 1972 through February 1980 (Figure 1). The vessels constructed during this period include two large auxiliary classes: the Fuqing (Fu-ching) AOR (replenishment oiler) and the Daijiang (Ta-kiang) AS (submarine tender). Seven additional classes were constructed during the period, including: the Dazhou (Ta-chou) ASL (small submarine tender); the Youdian (Yutien) ARC (cable-laying repair ship); the Duchong (Tu-chung) ATR (ocean rescue tug); two AOTL (transport oilers), the Shengli (Shengli) and the Fulin (Fu-lin); the Dandao (Tan-tao) AF (refrigerated stores ship); and the Hujin ATA (auxiliary ocean tug).

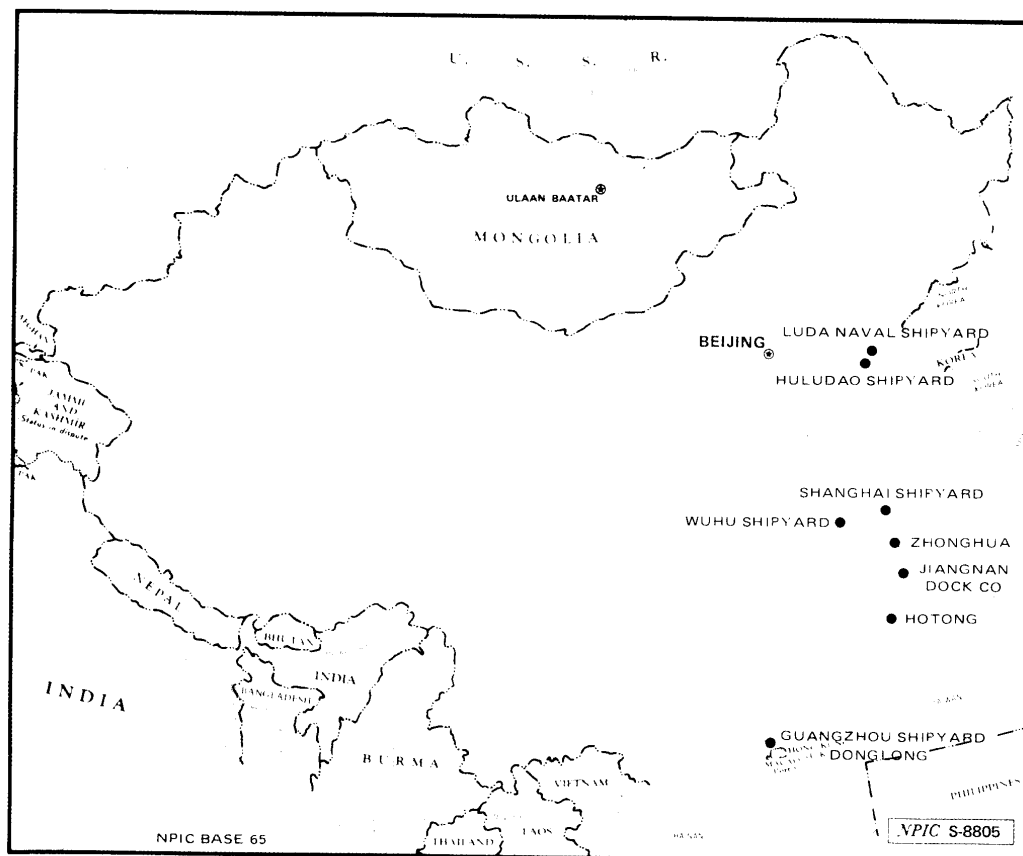


FIGURE 1. LOCATIONS OF NAVAL AUXILIARY CONSTRUCTION PROGRAMS IN CHINA

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Table 1.
Chinese Naval Auxiliary Construction Programs

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Item	Ship Name, Type, LOA, Beam	Shipyards	Start of Production	Number of Units	Production Status	Comments	
1	Fuqing-class AOR (Replenishment oiler) 169m (LOA), [redacted] (beam)	Luda-Dairen	Unit 1, Sep 76 Unit 2, Nov & Dec 78 Unit 3, Feb & Mar 79	3	Program is prob complete with 3 units	Unit 2 launched Mar & Apr 79; Unit 3 launched Aug & Sep 79; variations in aft superstructure and stack exist between unit 1 and units 2 & 3, indicating units 2 and 3 may have different engineering spaces; stack on Units 2 and 3 is farther forward	25X1
2	Dajiang-class AS (submarine support ship) 156m (LOA), [redacted]	Shanghai-Jiangnan	Unit 1, Feb-Sep 76 Unit 2 Unit 3, Jan 79	3 (Unit 3 outfitting; almost complete as of Feb 80)	No additional units evident	May employ DSRV for submarine rescue	25X1
3	Dazhou-class ASL (small submarine tender) [redacted]	Guangzhou-Donglong	Jul-Sep 76	2	Production stopped at 2 units		25X1
4	Youdian-class ARC (cable-laying/repair ship) [redacted] 11m (beam)	Shanghai-Zhonghua; Shanghai-Dongfanghong	Jul 75	4	Additional construction poss	Unit 1 completed by Apr 77; Unit 2 completed by Oct 77; Units 3 and unit 4 completed by Dec 79; Units 1 and 2 were built at Zhonghua; Units 2 and 3 at Dongfanghong; Unit 3 was apparently outfitted at Zhonghua	25X1
5	Duchong-class ATR (ocean rescue tug) [redacted]	Shanghai-Zonghua	Nov 75-Jan 76	3 (at least; 2 additional outfitting)	Additional units may be built		25X1
6	Shengli-class AOTL (transport oiler) 100m (LOA), [redacted]	Shanghai-Hotong	Jul 76	17 (4 naval & 13 civilian)	Construction continuing		25X1
7	Fulon-class AOTL (small transport oiler) 66m (LOA), [redacted]	Shanghai-Hotong	Mar 72	As many as 30 (6 naval, at least)	Construction terminated by Sep 76	After completion of last 3 units in Sep 76, Shengli production was begun	25X1
8	Dandao-class AF (refrigerated stores ship) [redacted]	Huludao	Jul-Aug 79	At least 7 (3 Naval)	Additional units may be built	At least 2 of these units are civilian vessels	25X1
9	Hujiu-class ATA (aux ocean tug) 61m (LOA), 11m (beam)	Wuhu	Oct 76	24 (10 naval; 2 naval ucon)	Production of these vessels is continuing		

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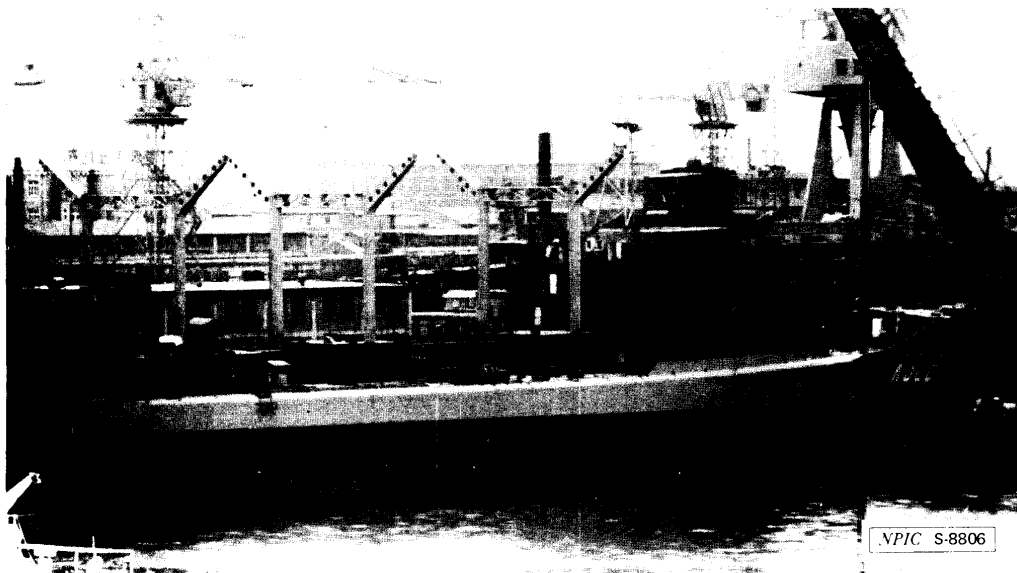


FIGURE 2B. FUQING-CLASS AOR (UNIT 2) BEING OUTFITTED AT LUDA SHIPYARD DAIREN

ANALYSIS

Fuqing-Class AOR

2. (TSR) The Fuqing-class AOR (Figures 2A and 2B and item 1, Table 1) is an 18,000-ton (estimated)-capacity replenishment oiler equipped with six replenishment stations and a helicopter landing deck. Built at Luda (Lu-ta) Shipyard Dairen [REDACTED], this vessel is the largest and most important auxiliary in China and will give the Navy an underway-replenishment capability. There are three units in the class, possibly indicating that one unit will eventually be deployed to each of the three fleet areas.

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3. (TSR) Development of the Fuqing AOR is evidence of China's intention to develop a capability to operate naval forces away from traditional coastal waters. With the eventual deployment of the Fuqing, a variety of special-purpose vessels and escorts will be able to operate with greater flexibility over much greater ranges.

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FIGURE 3B. DAJIANG-CLASS AS (UNIT 1) AT SHANGHAI SHIPYARD JIANGNAN DOCK COMPANY

Dajiang-Class AS

4. (TSR) The Dajiang-class AS (Figures 3A and 3B and item 2, Table 1) is a large multipurpose, ocean-going support vessel equipped with a large hydraulic deck crane and a helicopter landing deck. All three vessels in the class were built at the Shanghai (Shang-hai) Shipyard Jiangnan (Kiang-nan) Dock Company [redacted]. Although its primary function will be submarine support and rescue, the other functions of the Dajiang could include supporting the submarine-launched ballistic missile test program as a reentry vehicle recovery ship.

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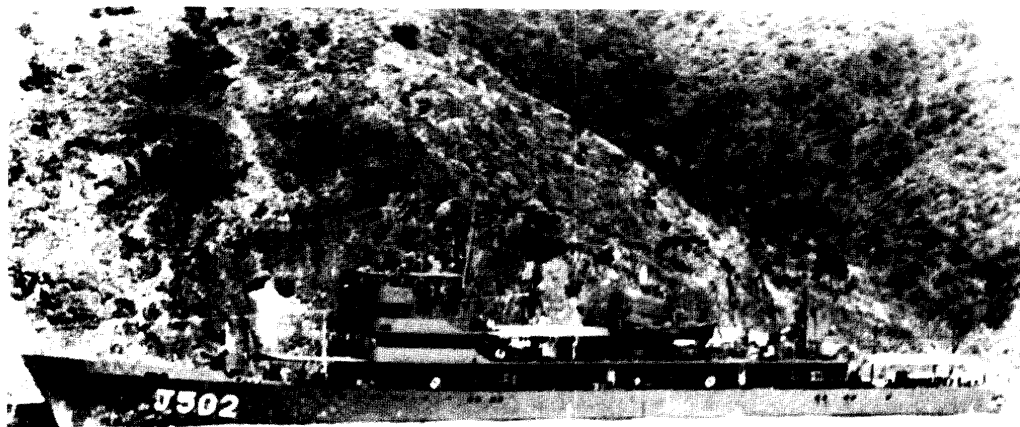
5. (TSR) In its submarine rescue capacity, the Dajiang may employ a deep-submergence rescue vehicle (DSRV). A DSRV was identified at the Shanghai Shipyard Jiangnan Dock Company in September 1979, and all three Dajiang units have possible DSRV deck cradles, probably for storing the vehicle. Although no details of the Chinese DSRV are available, it appears to be similar to the DSRV for the US Navy. Equipment of this kind is usually designed for depths beyond 200 meters and indicates China's intention to carry out long-range, deep-water submarine operations.

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FIGURE 4B. DAZHOU-CLASS ASL

Dazhou-Class ASL

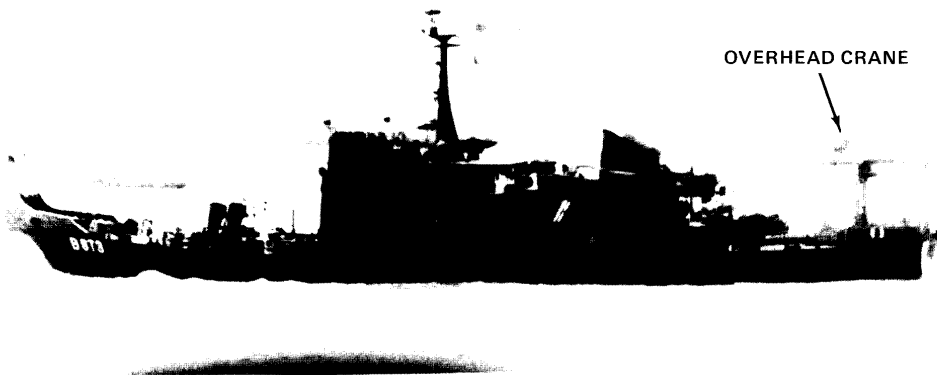
6. (TSR) The Dazhou-class ASL (Figures 4A and 4B and item 3, Table 1) is a small, armed submarine tender equipped with a boom-type crane aft of the stack. Armament consists of one twin 37mm gun mount forward of the bridge and two 14.5mm guns aft on either side of the crane. There are two units in the class, both of which are assigned to the South Sea Fleet (SSF). Both were built at Guangzhou (Kuang-chou) Shipyard Donglong (Tung-lang)—

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7. (TSR) The construction of these vessels parallels the increase in diesel submarine strength in the SSF and reflects the growing need for their support.

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FIGURE 5B. YOUDIAN-CLASS ARC (NAVAL VERSION)

Youdian-Class ARC

8. (TSR) The Youdian-class ARC (Figures 5A and 5B and item 4, Table 1) is a twin-stack, cable-laying repair ship. The first two ships, one of which is civilian, were built at Shanghai Shipyard Zhonghua (Chung-hua)-[REDACTED] Two additional vessels were built at Shanghai Shipyard Dongfanghong (Tung-fang-hung)-[REDACTED] The naval version has, in addition to four 14.5mm guns, a movable overhead crane mounted on the fantail. All four ships have a prominent bow that supports a cable-laying sheave.

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9. (TSR) While the civilian vessel is probably engaged in laying commercial phone cable, the naval units may be involved in expanding secure communications between various naval installations.

10. (TSR) Prior to the construction of the Youdian class, the Chinese Navy had only one cable-laying vessel, the Wulai-class ARC. This ship was constructed at Guangzhou Shipyard Donglong in the late 1960s.

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**FIGURE 6B. DUCHONG-CLASS ATR AT SHANGHAI SHIPYARD ZHONGHUA****Duchong-Class ATR**

11. (TSR) The Duchong-class ATR (Figures 6A and 6B and item 5, Table 1) is the largest vessel of this type built by the Chinese and was undoubtedly designed to augment the Navy's salvage capability. The ship, also built at Shanghai Shipyard Zhonghua, is equipped with a large boom crane on the aft superstructure and is probably unarmed. At least one of these ships has been deployed and was involved in the AWA MARU salvage operation in the Taiwan straits during the spring and summer of 1979.

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**FIGURE 7B. SHENGLI-CLASS AOTL (NAVAL VERSION) AT SHANGHAI SHIPYARD HOTONG****Shengli-Class AOTL**

12. (TSR) The Shengli-class AOTL (Figures 7A and 7B and item 6, Table 1) is a transport oiler currently being built at Shanghai Shipyard Hotong. At least 17 of these ships have been built but only four are naval units. Armament on these units consists of a probable 37mm gun mount on the forecastle deck and two probable 37mm gun mounts aft of the stack. The Shengli-class AOTL is the third in a series of progressively larger transport oilers built at Hotong since 1950 and reflects the Navy's changing requirements for ships of this type.

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 GUN POSITION

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FIGURE 8B. FULIN-CLASS AOTL (NAVAL VERSION) IN SHANGHAI AREA

Fulin-Class AOTL

13. (TSR) The Fulin-class AOTL (Figures (8A and 8B and item 7, Table 1) is a small transport oiler built at Shanghai Shipyard Hotong from March 1972 through September 1976. At least 30 of these vessels have been built and at least six units serve as naval auxiliaries. The Fulin is armed with two twin 25mm gun mounts, one on the forecastle deck and one aft of the stack.

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Dandao-Class AF

14. (TSR) The Dandao-class AF (Figure 9 and item 8, Table 1) is a three-hatch, refrigerated stores ship equipped with two deck cranes situated between the hatches. The vessel is armed with two twin 25mm guns and is similar to two 60-meter Tanlin-class AFs built in 1961. Seven units, including three subordinate to the Navy, have been built at Huludao (Hu-lu-tao) Naval Base Shipyard and Port Facility [] since July 1979.

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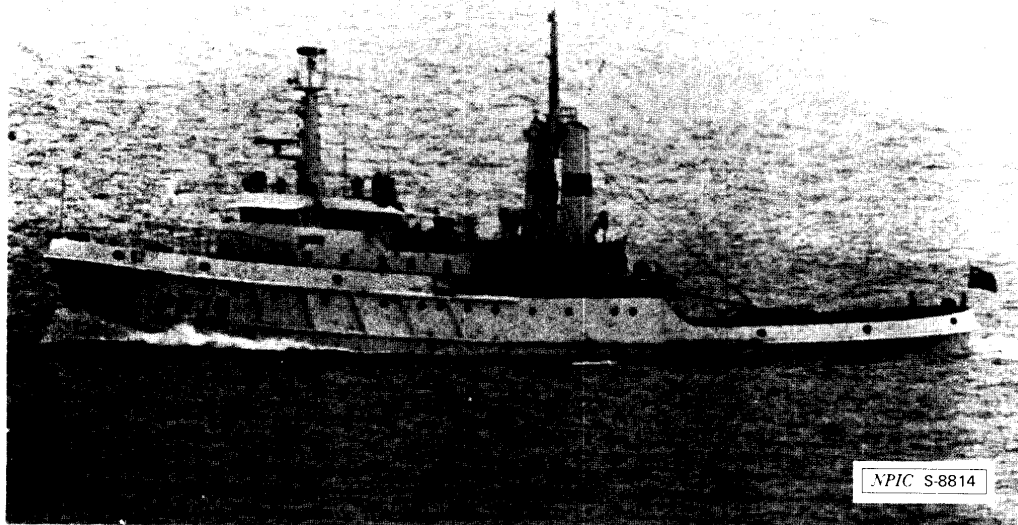


FIGURE 10B. HUJIU-CLASS ATA

Hujiu-Class ATA

15. (TSR) The Hujiu-class ATA (Figures 10A and 10B and item 9, Table 10) is a twin-stack auxiliary ocean tug currently in series production at Wuhu (Wu-ha) Shipyard [redacted] These vessels are employed by the Navy and merchant fleet as a standard ocean tug and have supported salvage operations.

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IMAGERY ANALYST'S COMMENTS

16. (TSR) China's auxiliary construction increased significantly in 1976 (Table 1, "Start of Production" column). Production of both the Fuqing and Daijiang classes started in September of that year. Four programs for the construction of smaller vessels also began in 1976. These vessels are the Dazhou-class ASL, the Duchong-class ATR, the Shengli-class AOTL, and the Hujiu-class ATA.

17. (TSR) Currently, however, naval auxiliary production in China is in a consolidation period. This consolidation will continue until the new vessels, particularly the Fuqing and Daijiang Classes, become fully integrated into the Navy. It is possible, however, that before this is completed additional small auxiliaries may be designed and built as needed.

18. (TSR) When the ships discussed in this report are evaluated and other requirements of the Navy are assessed, additional auxiliaries would be built. These ships would be designed to complement both the Navy's existing coastal defense capability and its expanding deep-water operations.

REFERENCES

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