



Traceca traffic and feasibility
studies, Module B: New
Caspian shipping services

Inception report

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REPORT COVER PAGE

Project Title : **Traffic and Feasibility Studies**
 Module B Title: **New Caspian Sea Shipping Services**
 Project Number: **TNREG 9803**
 Module B Countries: **Azerbaijan, Kazakhstan, Turkmenistan (Georgia, Ukraine)**

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Abbreviations and Acronyms

ACSP	Aktau Commercial Sea Port
BISP	Baku International Sea Port
Cascor	Caspian Corporation
CSC	Caspian Shipping Company
CU	Co-ordination Unit
EBRD	European Bank for Reconstruction and Development
EC	European Commission
ESCAP	Economic and Social Commission for Asia and the Pacific (an institution of the United Nations)
EU	European Union
IMO	International Maritime Organisation
MoT	Ministry of Transport of Turkmenistan
MoTC	Ministry of Transport and Communications of the Kazakh Republic
PSC	Port State Control
SOLAS	International Convention for the Safety of Life at Sea, 1974
Tacis	The European Union's Tacis Programme
TAR	Trans-Asian Railway Corridor
tdw	tonnes dead weight
TEN	Trans-European Network
TML	Turkmen Maritime Line
ToR	Terms of Reference
t.p.a.	tonnes per annum
TRACECA	Transport Corridor Europe-Caucasus-Asia

1 Project Synopsis for Module B

Project Title	: Traffic and Feasibility Studies
Module B Title	: New Caspian Sea Shipping Services
Project Number	: TNREG 9803
Module B Countries	: Azerbaijan, Kazakhstan, Turkmenistan, Georgia, Ukraine

Project objectives (Module B)

According to the terms of Reference the ultimate objective of Module B is to define conditions under which new shipping services or lines could be inaugurated on the Caspian Sea. If the analysis reveals that under present conditions or under conditions which can realistically be created within the Caspian region, a new shipping service or line is feasible, then a business plan will be prepared.

Specific objectives are:

1. to assess the cargo potential for transports across the Caspian Sea;
2. to analyse the availability of current shipping capacity on the Caspian Sea;
3. to investigate the operating costs of vessels in the Caspian Sea;
4. to investigate technical constraints relative to navigating and operating vessels on the Caspian Sea;
5. to examine the availability of qualified human resources for the operation and management of a merchant fleet;
6. to develop a strategy for providing training needs for local mariners and shipping experts;
7. to investigate the legal and regulatory environment affecting shipping on and into the Caspian Sea;
8. to recommend a management structure for a new shipping service or line, provided the foregoing steps have indicated sufficient evidence for the feasibility and demand for such a service or line;
9. to establish a business or feasibility plan for possible new or extended shipping services on the Caspian Sea, provided that the foregoing steps have indicated sufficient evidence for the feasibility and demand for such a service or line;

- Planned outputs
10. to discuss the results of the business plan with interested parties.
 1. Reliable and robust information on the present and future development of transport across the Caspian Sea.
 2. Analysis of the possible match or mismatch between available shipping capacity on the Caspian and forecasted transport demand.
 3. Cost estimates for the operation of vessels on the Caspian Sea.
 4. Report on the technical conditions of navigating on the Caspian Sea.
 5. Investigation into existing facilities in the Caspian region capable of training mariners and shipping management staff.
 6. Proposal for a strategy to develop human shipping resources in line with international standards. To familiarise the beneficiaries with the implications of this proposal a regional seminar will be held.
 7. Report on legal and regulatory constraints affecting shipping on the Caspian Sea.
 8. Proposal for the management structure of a new shipping service or line (if considered feasible).
 9. Business or feasibility plan for a new shipping service or line operating on the Caspian Sea (if considered feasible), that should stand up to potential financing parties' scrutiny.
- Project activities
1. A traffic forecast provided by Module A will be analysed with respect to traffic across the Caspian Sea and cross-checked for plausibility with respect to recent transport data; a general overview of macro economic factors affecting the project and trade and transport conditions prevailing in the Caspian sea region (especially in Turkmenistan, Kazakhstan and Azerbaijan). Interviews with local/regional transport experts both from public sector (administrations, institutions) and private sector traffic users (operators, freight forwarders, consultants) will be conducted.
 2. Review of recent studies on the situation of shipping in the Caspian Sea, and of selected shipping registries will produce a preliminary list of tonnage available for shipping in the Caspian Sea. This list will be checked in the course of an "on-site" visit in the Caspian region and during talks with representatives of the major ports of the beneficiary countries. The then confirmed tonnage available in the Caspian will be compared with the forecasted demand for transport. In case of the demand exceeding the available shipping capacity, the consultants will propose what type or types of vessel should additionally be made available.

3. Review admiralty charts and/or 'Pilot' handbooks of the Caspian Sea, port registers (e.g., 'Ports of the World') and existing studies on nautical aspects of Caspian Sea navigation (e.g. EC: Caspian Sea Water Level Study). Superficial inspection of access channels, the Volga-Don-Canal (if possible), waterfront port infrastructure, navigational infrastructure and maintenance facilities in Aktau, Turkmenbashi and Baku. Analyse the consequences of the identified limitations for types and sizes of suitable vessels, risk of damage and time loss and in general propose possible measures to remove these limitations.
3. Investigate and evaluate the local and regional situation concerning a human resources base for the maritime profession.
4. Advise on the most appropriate steps to be taken by, in particular, Kazakhstan and Turkmenistan, in establishing a human resources base for a national shipping industry. In order to assist local training institutions and other maritime organisations to develop their services to international standards, a regional seminar will be held to familiarise them with international maritime practice.
5. Analyse (market) position, intention, objectives of the companies, and management structures of operators in the Caspian Sea, both present and potential. Propose how a new line or shipping service can effectively be incorporated within the existing management structure(s) of present and potential operators on the Caspian Sea and develop rough management structures for new ventures.
6. Identify the possible fields of interaction between the legal, regulatory and political environment of the Caspian and Volga-Don Canal on the one hand and shipping on the Caspian Sea on the other. Collect and review existing studies and literature with respect to the identified fields of interaction. Additional information will be gathered and gaps filled by means of interviews with legal and political experts, and research especially of local experts into administrative, regulatory and legal procedures in the beneficiary states. Analyse the extent to which the existing legal, fiscal and regulatory frame hinders or facilitates the development of shipping on the Caspian Sea, especially with regards to the establishment of a new shipping venture. Recommend improvements and changes required.
7. Based on the information provided by Module A and the data base secured in the preceding tasks the consultants will assess the current costs of operating ships in the Caspian Sea, and the revenues, and calculate the profitability, or otherwise, of the existing services. Develop a limited set of scenarios, based on reasonable assumptions depicting possible cargo flows from the forecast of Module A, and draw consequences therefrom with regard to vessel capacity. Demonstrate the areas of maritime activities which in the consultants' estimation are the most promising. Test the various calculations, scenarios, proposals and suggestions listed above. Provide

and hand over to beneficiary or other interested party(ies) a model calculation with sufficient flexibility enabling such party(ies) to fine-tune and adapt the same to specific requirements. Demonstrate the commercial viability of one or several models. Make proposals with respect to ship chartering or owning. Propose a method or methods for setting up a new operation including suggestions concerning ship acquisition or chartering, staffing ashore and afloat, selection of suitable ports of registry, management structures, a preliminary timetable, and ancillary matters. Discuss the entrepreneurial and other risks and opportunities associated with shipping services in the Caspian Sea.

Project starting date	Contract signature	30 August 1999
	Actual start of project activities Module B	1 April 2000
Project duration	14 months for module B, counted from	1 April 2000
	24 months for whole project, including modules A, B, C, D and E	

2 Analysis of Module B at the End of June 2000

2.1 Introduction

The contract for the Traffic and Feasibility Studies Project (TNREG 9803) was signed between the EU Commission and BCEOM on 30 August 1999. The project consists of the following five modules:

Module A	Traffic Database and Forecast
Module B	New Caspian Sea Shipping Services
Module C	Redevelopment of Aktau Ferry Terminal
Module D	Navigation Channel of Turkmenbashi Port
Module E	Transport of Crude Oil on the Caspian Sea

UNICONSULT Universal Transport Consulting GmbH was sub-contracted by BCEOM to provide consulting services related to Module B, since UNICONSULT not only has considerable working experience in the maritime consulting sector but also regional experience in Central and Eastern Europe and Central Asia.

Module B was scheduled to start as soon as Module A had generated a traffic forecast for the TRACECA countries. Unfortunately, Module A was delayed due to problems unforeseeable at the time of intended project start. Predictably, this impacted on the time schedule and initial performance of Module B. However, it is assumed that the timeframe as per the ToR (Module B, chap. 4.3) need not be amended.

On 15 May 2000, Mr. Marcel Sames, transport economist and module manager of Module B, and Mr. Norbert Bellstedt, senior shipping expert, started on their initial tour of the three main beneficiary countries as mentioned in the ToR (Module B, chap. 4.1.1). Their intention was to inform government officials on the objectives of Module B and to collect information relevant for project work by interviewing representatives of administrative institutions including ministries, and companies both government-owned and private, operating in the transport sector. The visits took place as shown below:

Azerbaijan:

Baku: 15 – 20 May 2000

Kazakhstan

Almaty: 20 – 22 May 2000 and 26 – 29 May 2000

Astana 22 – 24 May 2000

Aktau: 24 – 26 May 2000

Turkmenistan

Ashgabat: 30 May – 03 June 2000

Turkmenbashi 01 June 2000

Furthermore, from 21 May 2000 until 21 June 2000 Mr. Jochen Schmidt, maritime and nautical engineer and training expert, visited the beneficiary countries (including Georgia and the Ukraine) to examine existing marine training institutions in the Caspian region. Furthermore, he started his on-site investigation concerning the availability of vessels and the constraints of navigating in the Caspian Sea.

From May 16 to June 1, both days inclusive, the consultants met several government officials, representatives of public and private institutions and companies and other transport experts from the beneficiary countries. A meeting schedule is attached in Annex 1. The information collected during these discussions, in combination with additional information available to the consultants constitutes the basis for the present Inception Report for Module B.

2.2 Staff mobilisation

Following staff is committed to module B.

BCEOM

- Mr. Philippe Delaporte, general team leader, acting as substitute for Mr. François-Marc Turpin. Mr. Delaporte was appointed by EC on 10 November 1999 and left for the TRACECA region on 19 November. He is now permanently based in the project main office in Baku.

UNICONSULT

- Mr. Marcel Sames, transport economist and module manager for module B, paid an initial visit to Azerbaijan, Kazakhstan and Turkmenistan from 15 May to 3 June 2000. He is scheduled to return to the Caspian region in September and to stay there until the end of November 2000.
- Mr. Norbert Bellstedt, senior shipping expert, accompanied Mr. Sames on his first visit to the Caspian region. Mr. Bellstedt is scheduled for a second visit to the three main beneficiary countries in September.
- Mr. Jochen Schmidt, maritime and nautical engineer, paid a visit to the beneficiary countries between 21 May and 21 June 2000. Mr. Schmidt will start a second mission to the Caspian region in autumn 2000.
- Experts from the EU Expert Pool will be assigned to tasks and sent on their mission to the Caspian region according to project needs and progress.

HPTI Hamburg Port Training Institute

- Mrs. Helga Wagner, training expert, will start her mission for the preparation of the training seminar after analysing the results of the investigation into the present regional training system in close co-ordination with the module manager of Module B and the overall team leader.
- Mr. W. Arit, Mr. K. Plate, Mr. H. Stuemmer (training expert pool), training experts, will be committed to the project as soon as the time schedule for the training seminar is agreed and fixed with the overall team leader and the beneficiaries.

Local partners

Azerbaijan

- Capt. Fuad Rasulov, Caspian shipping expert from Baku, Azerbaijan, was committed to the project from May 2000.

Kazakhstan

- The consultants co-operate with NIIT Transport Research Institute, Almaty, Kazakhstan. Here Mrs. Violetta Kurchenkova, maritime expert, will provide expertise

NIIT will also provide a legal expert for the analysis of the legal and regulatory environment in the Caspian region in respect of maritime matters and will assist in analysing the economic situation in Kazakhstan.

Turkmenistan

- The consultants are currently engaged in negotiations with a local partner. The local partners originally earmarked in the tender proposal have in the meantime shifted the focus of their business.

2.3 Co-operation with Tacis

In Baku the experts met briefly with

- Mr. Marc Graille, TRACECA Programme Coordinator, on 18 May 2000

to introduce the mission's purpose.

During their visit to the beneficiary countries Mr. Sames and Mr. Bellstedt had very informative meetings with the following representatives of the national Tacis Co-ordination Units (CU):

- Mr. Boris Smolin, Tacis advisor, and Mr. Mahir Kazimov, Tacis transport and telecommunications sector expert. Discussions were held at the premises of Tacis CU Azerbaijan in Baku on 17 May 2000.
- Mr. Emilio Valli, Tacis team leader, and Mr. Daulet Kabiyeu, Tacis national director in the Tacis CU Kazakhstan office in Astana, on 24 May 2000.
- Mr. Michael Wilson, Tacis advisor, in the Tacis CU Turkmenistan office in Ashgabat on 30 May 2000.

The information provided during these meetings considerably added to the consultants' understanding of the present political, administrative and economic situation in the Caspian region. Furthermore, the consultants gratefully noted the efficient assistance they received from the a.m. Tacis CUs in arranging such important details as hotel accommodation, appointments, transport, translators, etc. during the consultants' tour of the beneficiary countries.

2.4 Counterparts

With regards to Module B, the consultants have identified two counterparts per main beneficiary country, as under:

- Mr. Abid Sharifov, Vice Prime Minister of Azerbaijan

- Mr. Ikram Sadikov, Member of the Azeri Cabinet of Ministers, responsible for transportation
- Mr. Abulgasy Kousainov, Deputy Minister of Transport at the Kazakh Ministry of Transport and Communications.
- Mr. Nicolai Yudin, Head of the Sub-Department for Water Transportation at the Kazakh Ministry of Transport and Communications
- Mr. Berdyev, Minister of Transport of Turkmenistan, Member of the Cabinet of Ministers.
- Mr. Bekmyrat A. Gurbanmuradov, General Director of Turkmen Maritime Lines, and a Deputy Minister of Transport

The consultants wish to place on record that during their visits to Azerbaijan and Turkmenistan, respectively, they were unable to see the Azeri and Turkmen counterparts listed above. Neither the consultants nor the Tacis CUs concerned spared efforts to arrange appointments. In Azerbaijan, Mr Sharifov was out of the country, and the meeting arranged with Mr Sadikov did not come to pass. In Turkmenistan, Mr Gurbanmuradov was on a business trip to Europe, and the considerable efforts made by the consultants to see Mr Berdyev unfortunately came to naught. This is very disappointing since the consultants 1) announced their meeting requests in good time prior to their visits to the beneficiary countries through official representatives of Tacis, and 2) were available for meetings in Azerbaijan for five days and in Turkmenistan for four days, thus giving the beneficiaries sufficient time for a brief meeting. The consultants cannot but take this as a clear indication of a lack of interest in, and a want of dedication to, the objectives, outputs and activities of the project's Module B on the part of two of the main beneficiaries.

2.5 Progress of Module B

2.5.1 Demand Analysis

2.5.1.1 The TRACECA Route

From a central European angle, the TRACECA route extends from the Ukraine via the eastern Black Sea ports of Poti and Batumi (Georgia) and via Tbilisi to the western Caspian Sea port of Baku (Azerbaijan). Here, the route splits into a northern lane across the Caspian Sea to the port of Aktau (Kazakhstan) and onwards via Aktybinsk to Chimkent, and a southern lane to the port of Turkmenbashi (Turkmenistan) and from that port via Ashgabat and Tashkent (Uzbekistan) to Chimkent. In Chimkent both corridors re-unite and the TRACECA route finally ends at the Kazakh-Chinese border at Druzhba (Kazakhstan). The following review of information gathered during the initial visit to the Caspian region focuses on the current transport situation in the beneficiary states of Azerbaijan, Kazakhstan and Turkmenistan. Where deemed necessary, information on neighbouring states (Russia, Iran) have been included.

2.5.1.2 Beneficiary States

Azerbaijan

Following the disintegration of the Soviet Union, GDP in Azerbaijan steadily declined from 1988 and, by 1994, stood at about 37percent of its 1988 value. Virtually all sectors of the economy were hard hit, with agricultural output falling by about 43 percent and industrial output losing some 60 percent during the 1989-

94 period. Particularly affected were the oil and gas sectors, where production fell from 13.8 to 9.6 million tonnes between 1987 and 1994, as a result of growing problems with infrastructure, poor production practices, and the depletion of oil fields.

Since 1995, with the gradual stabilisation of the political situation and the cease-fire in the Armenian conflict, an economic program supported by International Financial Institutions has been implemented. Inflation, which ran at a staggering 1,664 percent in 1994, fell to less than 1 percent at the end of 1997 and became negative in 1998. GDP grew by 10 percent in 1998 compared to declines of 50 percent at the end of 1993 and another 22 percent in 1994.

The current account deficit of US\$1.5 billion in 1998 was financed mainly through foreign direct investments of about US\$1 billion. This was predominantly for the import of goods and non-factor services related to the expansion of the hydrocarbon sector. The exchange rate has consequently begun to appreciate. At the time of writing the national currency, the Manat, seems to be overvalued, thus local manufacturers even of low-priced commodities find it difficult to compete with imports. The industry is working at about 20 percent capacity utilisation.

A short- or medium-term improvement of the current economic situation in Azerbaijan is likely, if knowledge of the functioning of market mechanisms is further increased. Consequently, Azerbaijan's medium-term prospects are potentially good, depending on political stability, successful initiatives to address corruption, public sector governance, legal reforms and the business environment (in Azerbaijan the rules of the game are sometimes subject to unpredictable changes, which makes it difficult for investors to make reasonably reliable investment analyses).

Kazakhstan

Kazakhstan possesses considerable volumes of natural resources, of which the most important are crude oil, gas and large deposits of coal, and iron and other metal ores. The major suppliers of coal, metal products, asbestos and grain are located in the north of Kazakhstan. Precious metals and oil are to be found in the west and copper and ferrous ores in the centre of Kazakhstan.

The disintegration of the USSR and the collapse of demand for Kazakhstan's traditional heavy industry products have resulted in a sharp contraction of the economy since 1991, with the steepest annual decline occurring in 1994. In 1995-97 the pace of the government program of economic reform and privatisation quickened, resulting in a substantial shifting of assets into the private sector. The December 1996 signing of the Caspian Pipeline Consortium agreement to build a new pipeline from western Kazakhstan's Tengiz oil field to the Black Sea increases prospects for substantially larger oil exports in several years. Kazakhstan's economy turned downward in 1998 with a 2.5% decline in GDP growth due to slumping oil prices and the August financial crisis in Russia.

The most important trading partners of Kazakhstan are the CIS (Russia, Ukraine, Belarus, Uzbekistan ...), China, Iran and Turkey. The fact that import substitution in Kazakhstan is growing (i.e. local goods are becoming more and more attractive for consumers) can be interpreted as a positive sign of the Kazakh industry gradually catching up.

Kazakhstan's medium- and long-term economic prospects are promising due to its vast hydrocarbon and mineral resources, low external debt obligations, and well-trained work force. New legislation concerning foreign investment, taxation, and oil and sub-soil rights are expected to improve the climate for foreign investment in the next few years. By early in the next century, Kazakhstan is expected to be able to finance its balance of payments through foreign investment, private capital and regular project finance, thereby eliminating the need for exceptional support from official sources. In the short-term, however, the country will

need to continue its reform program and deal with a number of external shocks if it is to increase its growth rate to acceptable levels.

Turkmenistan

Until the end of 1993, Turkmenistan had experienced less economic disruption than other former Soviet states because its economy received a boost from higher prices for oil and gas and a sharp increase in hard currency earnings. In 1994, Russia's refusal to export Turkmen gas to hard currency markets and mounting debts of its major customers in the former USSR for gas deliveries contributed to a sharp fall in industrial production and caused the budget to shift from a surplus to a slight deficit. The economy bottomed out in 1996, but high inflation continued. Furthermore, with an authoritarian ex-communist regime in power and a tribally based social structure, Turkmenistan has taken a cautious approach to economic reform, hoping to use gas and cotton sales to sustain its inefficient economy. In 1996, the government set in place a stabilisation program aimed at a unified and market-based exchange rate, allocation of government credits by auction, and strict limits on budget deficits. Privatisation goals remain limited.

Turkmenistan has a weak industrial base. A major proportion of Turkmen foreign trade is conducted on the basis of bartering: Turkmenistan imports from western Europe mainly consist of foodstuffs (incl. processed food), beverages, oilfield and gas treatment equipment, machinery, whereas Asia mainly supplies textiles. Turkmen exports to the west comprise oil, gas (to Europe, Turkey, Russia, Belarus, Ukraine) and raw cotton. In recent years the country has increased its trade with Iran and with Far Eastern countries.

Since Turkmenistan is a parental state (i.e. government subsidies in almost all sectors of the economy: e.g. free water and energy supply to households), state finances are not in a good shape, even though about 20 per cent of world energy resources are assumed to be buried in Turkmenistan. Turkmenistan is working hard to open new gas export channels through Iran and Turkey to Europe. Furthermore, the country started selling gas to Russia in late December 1999, thereby improving its feeble balance of payments. The problem remains to move export commodities to the world markets.

All in all, Turkmenistan has good long-term potential for development given its natural resource base, but the realisation of this potential would require not only a radical change in policies (Turkmenistan needs to mesh its ad-hoc policies into an internally consistent and coherent reform program) but also careful management of public expenditures and investments.

Common Problems

Being land-locked, the main beneficiary countries face the harsh fact that of their export revenues an excessive proportion is absorbed by transport costs. The current oil price of around 30 US-\$ per barrel may justify transport routes and means however bizarre, but the world market prices for iron steel, cotton (and other agricultural) products do not. The price of oil is very volatile, and a weak oil market will further reduce the net proceeds from its principal exports. It would also reduce the number of financially viable transport routes. Such oil producing countries as e.g. Norway, the UK, Saudi-Arabia or Venezuela to name a few can move their crude oil and/or derivatives from oil wells close to or even in the open seas to the markets in large tankers with low unit costs whereas the location of oil deposits in the Caspian region causes considerably higher transport costs and consequently reduces the countries' net profit from oil. The same applies to other major export commodities.

2.5.1.3 Transport of Cargoes Within and Through the Caspian Region

Oil

Of the oil produced in Kazakhstan (Year 2000 theoretical estimate: 32 million tonnes) and Turkmenistan (as above, 9 million tonnes), about 150,000 tonnes per month, mainly from the Kazakh Tengiz oil field are being carried in Azeri and Russian tankers to Baku (handled in Dubendi, about 45 km north of Baku). The oil is then transferred to rail tank wagons and transported through the Caucasus to the Black Sea port of Batumi. The capacity of this rail route is about 40 trains per day per direction. Currently 2.5 million tonnes p.a. of crude oil are transported over this route which has a capacity of at least five million tonnes p.a., possibly even twice that figure. The maximum capacity of a train on this route is some 2000 tonnes equalling 36 rail tank wagons of 60 tonnes payload.

Increasing quantities of crude oil (from Buzachi and other fields in the Mangyshlack county area) move from Aktau to Makhachkala where it connects with the pipeline from Baku to Novorossisk.

It should be noted though that the routing of cargo via Makhachkala and Astrahan is tantamount to a routing through Dagestan (the same applies to the pipeline from Baku to Novorossisk). At the present stage of the Chechnya conflict these routes can neither be considered reliable nor safe. Consequently, whenever the consultants refer to routes via Russia bordering on the west coast of the Caspian Sea the reader should bear in mind the present political obstacles associated with these routes.

In summer, i.e. when the Volga-Don Canal is open to navigation, there are occasional tanker transports (vessels of max. 5000 tdw, Russian flag) from Aktau to Astrakhan and from there to Novorossisk by rail or via the Canal to the Black Sea. The second most important maritime oil transport route links Baku with the Iranian port of Bandar Anzali (mainly transit oil from Kazakhstan ultimately destined to the Tabriz refinery). From Turkmenbashi oil is being shipped not only to Makhachkala but increasingly also to Anzali, where a pipeline to Tabriz reportedly is under construction.

Carriage of oil across the Caspian Sea is dominated by the CSC whose tankers moved about 5.7 million tonnes of crude oil and oil products across the Caspian Sea in 1999. CSC tankers serve the principal routes such as Aktau/Baku; Baku/Anzali; Turkmen ports/Makhachkala, and Aktau/Makhachkala, and are also involved in domestic Turkmeni tanker transports (Akarem/Alaja – Turkmenbashi). On the other hand, the Turkmenbashi/ Anzali oil trade appears to be firmly in the hands of Russian operators. Furthermore, certain quantities of Turkmeni oil are being carried by Russian tankers to Astrakhan and via the Volga-Don Canal to Black Sea destinations.

Regarding alternative routes or transport modes, a trans-Caspian pipeline from Aktau to Baku is under consideration, and so are others, but it is altogether uncertain at this stage whether any of those grand schemes will come to fruition in the short or medium term. Other options are those pipelines, which will be analysed in detail within the scope of Module E.

Dry Cargo

Dry cargoes shipped from Aktau to Baku/Azerbaijan on the east-west route originate in Kazakhstan, Turkmenistan and also Uzbekistan and comprise i.a. ferrous and non-ferrous metals, cement, timber, grain, cotton (i.a. in containers) and some chemical products.

In the west-east direction from Baku/Azerbaijan to Aktau/Kazakhstan and Turkmenbashi/Turkmenistan the principal commodities are manufactured products mainly from Turkey and the EU, and building materials. The dry cargo trade is divided between two modes, i.e. conventional cargo ships; and rail wagons and road

trucks shipped in ferries, with the commodities split between both modes in accordance with their physical nature. However, the movement of crude oil in rail tank wagons from Turkmenbashi, by ferry, to Baku is the one major exception to this rule. Dry cargoes from Aktau, i.e. grain and a large proportion of the metal products handled at that port, are almost exclusively destined to Iran. The Iranian demand for metals from Russia (Magnetogorski, Chelyabinsk) and Kazakhstan (Karagandar) currently amounts to some 200,000 t p.a. from Aktau which at present accounts for some 80 percent of ACSP's dry cargo throughput, but it is difficult to predict whether these volumes will be sustainable, since much depends on the rail tariff policy of the Kazakh government (cf. below). Once the special Kazakh rail tariffs for exports through the port of Aktau revert to regular levels, some of these volumes may be re-routed to Astrakhan, which reportedly is making strong efforts to regain this traffic. Moreover, as of the middle of 2000 Aktau has insufficient storage facilities for metal products (i.e., not enough space to segregate various categories of metal products). These storage facilities can only handle about 5,000-10,000 tonnes of metal products per month, thus much depends on the ports ability to co-ordinate and provide direct handling from rail/truck to vessel.

In the near future, ACSP expects to handle significant quantities of sulphur, since in the near-by Kazakh Tengiz oil field considerable amounts of sulphur as by-products of oil producing are generated. This commodity may be shipped to Azerbaijan as input factor for the Azeri chemical industry as well as to Africa as a base for the fertiliser production.

Before the disintegration of the Soviet Union, Baku served as the gateway to Iran. The dry cargo trade between the USSR and Iran amounted to an annual quantity of one million tonnes. Today, the Iran traffic consists of rather minor quantities of bagged cement and of construction material. In recent times the traffic from Iran to Baku has come to a virtual halt: there is no dry cargo from Iran (and from Russia) to Baku.

A major feature of the TRACECA route is the incidence of multiple handling and of several border crossings. A perfectly normal transport, by container, from the EU to, say, Ashgabad will move by sea from Europe to Poti. The container will be discharged and placed on a railway truck to be railed to Baku. This entails customs formalities, including deposits payable but very difficult to recover, in Poti and at the Georgian/Azeri border. The truck will then go by ferry to Turkmenbashi and onward by road to Ashgabad. By that time the container has crossed four borders and has been handled at least three times. All the same, transport specialists reckon that this route is safer than transiting Russia and Kazakhstan and offers itself for the movement of consumer goods such as foodstuff, beverages, tobacco, electronics, and the like. However it should be noted that current practices of customs clearance are far from efficient state-of-the-art procedures. Consequently, the cargo sometimes has to bear considerable waiting times and is charged with extra 'fees' not necessarily found in printed tariffs, which altogether may contribute to a reduced attractiveness of the TRACECA route.

With respect to the overall future development of the dry cargo trade, some experts do not expect dry cargo volumes across the Caspian to increase for a minimum of two years.

Ferries

CSC is the only ferry operator in the Caspian. Its ferries to Turkmenbashi do not always stick to their schedule: if the company feels there is enough cargo on board, the ferry leaves, if not the ferry stays in port waiting for more cargo. Nevertheless, the Baku – Turkmenbashi ferry service handles substantially more cargo than the Baku – Aktau service due to the fact that the Aktau terminal is under rehabilitation and cannot at present accommodate rail wagons but only cars and trucks. The ferry to Aktau basically sails on schedule but at a low frequency (once a week) due to a shortage of cargo. Currently the cargo from Baku to Aktau comprises some oilfield equipment, building material and certain consumer goods. There may be a future demand for the shipment of 20.000 tonnes of Kazakh grain from Aktau to Baku, plus minor quantities of non-ferrous metals, possibly in rail wagons. As of the middle of 2000, the single ferry operating on this route has an ex-

tremely poor utilisation and would normally be found to carry no more than 5 to 6 trucks per voyage and up to 22 in peak times, but even that gives a capacity utilisation of only 50 percent. The ferry can accommodate 150 passengers but rarely carries more than 35 to 50. After rehabilitation of the Aktau ferry terminal local experts expect a considerable increase in cargo volumes: part of today's cargo moving through Turkmenbashi will be routed via Aktau, since Turkmenbashi port is considered by many to be 'difficult'.

In theory Kazakhstan could operate its own ferries since the existing CSC ferries will become over-aged in the not too distant future. However, the opinion in Kazakhstan appears to be, quite sensibly so perhaps, that there is no point in creating ruinous competition in the east-west ferry trade, and instead, matters should be amicably discussed and agreed with CSC. Should transport volumes across the Caspian Sea rise, then Kazakhstan is prepared not only to transport its oil but also to enter the dry cargo business with owned vessels, e.g. through the carriage of metal products and grain to Iran (Bandar Anzali and Noushahr) and Baku with single deckers (or even in ferries). There is no immediate need therefor, but Kazakhstan is reportedly investigating the risks and chances of establishing a ferry service to Iran.

2.5.1.4 Alternative Routes to TRACECA (Excluding Pipelines)

The TRACECA sea route across the Caspian (Baku – Aktau/Turkmenbashi) competes with routes bypassing Baku. An unspecified amount of dry cargo from Aktau, Turkmenbashi and Iranian ports transits the Volga-Don Canal. This is an area where for obvious reasons, Russian carriers take the lions share of the traffic. The competition of this route is felt in summer, but in winter the cargo is re-routed via Baku when the Volga-Don Canal becomes ice-bound. There is also the transport chain Aktau – (sea) - Makhachkala – (rail) – Novorossisk. This route will be further stimulated by Russian ideas for the construction of a ferry terminal somewhere between Makhachkala and Astrakhan, capable of accommodating 280-m ferries with a capacity of up to 150 rail wagons. There is no reason why regular ferry services between Turkmenbashi and Makhachkala should not similarly be introduced, always provided there is sufficient inducement.

Most importantly, there is the competition from landbridges: Turkmenistan and Uzbekistan in particular are increasingly using routes other than TRACECA. Turkmenistan which seems to favour trading with Asiatic partners prefers the (land) route through Iran or via Turkmenbashi to and from Makhachkala and Astrakhan. Uzbekistan moves more imports and exports via Aktau rather than Turkmenbashi but also uses routes through Iranian and Russian ports, to the detriment of Turkmenbashi, even though the rail distance to Aktau is about twice as long. The reason are the excessive railway tariffs charged by Turkmen Railways.

Currently about 95 percent of all Kazakh imports and exports are transported by rail. For transports to the west, Kazakh exporters have the choice of several alternative rail routes through Russia. Those routes are generally considered cheaper and more reliable for commodities moving in large quantities than the TRACECA route across the Caspian Sea. Large volumes of ferrochrome (80,000 tonnes per month) from Aktybinsk and Pavlodar move by rail to Klaipeda (80 percent) and to some Black Sea ports (20 percent). The average size of a consignment of ferrochrome is about 2000 to 3000 tonnes (50 wagons). Zinc produced in Ust-Kamenogorsk and copper produced in Dzhezkazgan mainly go to St. Petersburg, where there are companies specialised in handling these commodities. Occasionally zinc and copper is also moving eastwards to the Pacific coast, partly in containers to South-Korea, that being one way for the shipping companies to recover their empty boxes and obtaining a slight contribution towards the deadheading costs.

Closely related to the trust of transport users in the traditional railway connections is the expectation that the northern route of the Trans-Asian rail corridor will have a bright and busy future. TAR spans 1,500 km from east China to Europe. The central TAR route passes through Iran and Turkey, and is much shorter than the Transsib and partly uses Kazakh territory. Currently in a first phase a special ESCAP task group for customs and general rules and regulations is investigating this corridor, to be followed by a second phase dealing with

aspects of costing and pricing. Today, cargo transport on the TAR is still quite expensive due to insufficient co-operation between the participating railway companies who seem to be totally unaware of the one stop shopping concept as a vital means of streamlining transit and of attracting clients.

Kazakhstan is at present preparing the construction of a new railway link (and a new road) enabling transports from the north of Kazakhstan to the west to avoid Russian territory, and thereby, two expensive and time-consuming border crossings. The construction is scheduled to commence next year and to be completed in 2004, financed by Japanese banks (the Japanese Development Fund has granted 1.2 billion US-\$ for transport projects in the northern part of Kazakhstan). Furthermore, this new link will enable the dispatch of block trains from east Asia via Kazakhstan to Europe reducing train running time from currently 24 days to 13 to 14 days.

However, there are no funds in the near future for further ambitious plans of the Kazakh MoTC, such as, e.g. the rehabilitation of some Kazakh sections of the TAR. Currently the construction of a road from Almaty to Bishkek and the rehabilitation and extension of Druzhba station are of the highest priority. Druzhba station is the node on the TAR where cargoes to and from East Asia leave or enter Kazakhstan. Last year about 3 million tonnes went to the east and only 0.5 million tonnes to the west. It is expected that by 2005 about 10 million tonnes will cross the border at Druzhba in both directions, making it the most important border point in the CIS.

At present a large proportion of cargo from Europe destined to Turkmenistan moves by landbridges via Turkey, Iran, of which again a certain proportion would be shipped to Iran and discharged at Bandar Abbas. Even though road conditions are very poor, substantial quantities of building material are being trucked over this route because constant delays in Baku and Turkmenbashi (due to administrative hinderances) are not acceptable to clients, who depend on timely supplies to keep their construction sites going, especially in Ashgabat.

Even cargo from East Asia destined to Azerbaijan rarely reaches Baku via the Caspian Sea. Sea shipment to Bandar Abbas or Poti are normally first and second choice, i.e. the TRACECA-route from the east is not highly frequented. But it is hoped that China will join the TRACECA corridor once the connection between Kyrgystan and China is in place. Cargo (mainly in 20/40 ft containers) will then be able to move from Asia via landbridge. According to local transport experts all projects, which promote a consistent and reliable TRACECA landbridge from East Asia to the Black Sea are highly welcomed.

2.5.1.5 Shipping Companies Operating in the Caspian Sea

Caspian Shipping Company (CSC, based in Baku), the major player on the Caspian Sea, owns 8 ferries, 34 tankers and a fairly large number of dry cargo vessels. Some of these vessels are currently operating in the Black and/or Mediterranean Seas, others are laid up due to lack of employment or to outstanding repairs. CSC vessels serve all Caspian Sea ports. The company operates all ferry services in the Caspian Sea (Baku - Aktau/Turkmenbashi), and has a monopoly in carrying oil from the east coast of the Caspian Sea to Baku.

Turkmen Maritime Line (TML, based in Turkmenbashi) owns four dry cargo vessels of about 3000 tdw each of which two are operating in the Black Sea due to cargo shortage in the Caspian Sea. The company has ordered a new tanker 5,000 tdw to be built in Turkey for delivery in 2001.

Kazmortransflot, based in Aktau, does not yet own any vessels. The company has been established very recently and at the time of the consultants' visit, it had a management but no operational staff. It is expected that operations with chartered tonnage will commence as soon as (political) decisions concerning a possible joint-venture with a Russian tanker operator have been taken.

Volga River Shipping is a Russian company owning dry cargo ships and mainly engaged in the trade to Iran.

Volgotanker, a Russian company owning suitably-sized river-sea tankers, calls at every port in the Caspian except Baku. Its main business is carrying oil and oil products from the ports on the eastern coast of the Caspian Sea to Russian ports but also to Iran

North Caspian Shipping, a Russian company owning some dry cargo vessels and some tugs, is a competitor of Volga River Shipping and operates mainly between Astrakhan and Iran.

Khazar Shipping, an Iranian company owns 3-4 dry cargo vessels and operates between Aktau/Turkmenbashi/Astrakhan and Iran. The company is mainly involved in carrying metal products .

2.5.1.6 Ports and Port Facilities in the Caspian Sea

The Caspian Sea ports of Baku, Turkmenbashi and Aktau are the key nodes in all transport chains on the TRACECA route across the Caspian Sea. Thus, it is not only important to establish efficient management structures and install modern and adequate superstructures within the ports but also to investigate and if necessary improve the connection between port infrastructure and the relevant hinterland transport infrastructure.

All ports located in the beneficiary countries are far from working at full capacity, e.g. ACSP has a capacity to handle 8 million t.p.a. of crude oil and oil products (but handled only actual about 2 million tonnes in 1999) and 1.5 million t.p.a. of dry cargo (about 300,000 tonnes in 1999). Dubendi oil terminals, today working at about 55 percent capacity, can be refurbished to handle almost four times as much as today, since not all piers and terminals (especially those owned by SOCAR, the state-owned oil company) are in a working condition. The current annual throughput stands at about 2.8 million tonnes, which must be seen against the backdrop of an agreement between the State Presidents of Azerbaijan and Kazakhstan to target a maximum annual movements of crude oil between Aktau and Baku of 10 million tonnes.

Though there currently seem to exist over-capacities in the port sector all beneficiary countries are pushing the development of their ports by large-scale rehabilitation, modernisation and extension. E.g. Aktau at present rehabilitates the ferry terminal and plans to purchase new oil storage facilities and to build a new grain terminal. Baku plans the extension of Dubendi oil terminal. Furthermore, the port managements of all major ports located in the beneficiary states expect to profit from the global trend towards containerisation of cargoes. Consequently, container yards at BISP and Turkmenbashi have been constructed and equipped (all funded by TRACECA) and Aktau has concrete plans to follow these examples. In this context some governments seem to consider plans of establishing a free zone (or free trade zone or free economic zone), alternatively a logistics centre on the premises of their main ports in order to attract more cargoes. There are transport experts who opine that container transportation for the foreseeable future will not play the same important part as in other parts of the world. The terminals intend further to increase the capacities of the ports to handle general cargo.

Having regard to navigational accessibility, BISP is currently refurbishing aids to navigation, financed and provided by Japanese companies led by Marubeni. Theoretically the maximum size of vessels operating in the Caspian is 12.000 tdw, but two tankers of this calibre and owned by CSC are in lay-up due to the inaccessibility at the time of writing of virtually all oil berths by ships of that size in a fully laden condition. The access channels at Dubendi and Turkmenbashi are too shallow. The majority of vessels are around 3,000 to 4,000 tdw, that size guaranteeing full flexibility (including Iranian ports and the Volga-Don Canal) It stands to reason that ships of that size and cargo intake have higher unit costs than larger vessels which has a direct bearing on maritime transport costs in the Caspian Sea.

Hinterland connections should be given a high degree of priority since ports not only handle but also distribute cargoes. The railway systems should enable rail operators to keep time schedules and to operate at competitive rates. There is no point in providing efficient and competitively priced port services if, as in Aktau, there is an insufficient and expensive railway link with the main network (the land on which the 18-km rail connection between the port of Aktau and Mangyshlack is situated is owned by Cascor, which now as a privatised company charges a high transit fee). In addition, the road system should be able to complement and at the same time compete with the rail system (e.g. plans for the construction of a road from Aktau to Uzbekistan in parallel to the existing railway are under preparation) to be able to match the special needs of different cargoes and establish a price and service competition between transport operators attracting more and more transport chains to the TRACECA corridor.

Russian and Iranian ports are similarly making some efforts to increase their attractiveness. E.g., the port of Makhachkala plans to construct a ferry terminal and an access to the Baku-Novorossisk pipeline which bypasses the port, and Iran has converted an old gas pipeline from Neka oil terminal to Teheran into an oil pipeline.

So far, the Iranian ports not only suffer from their restricted navigational accessibility (e.g. Noushahr port is so small that vessels can hardly turn around), but also from insufficient hinterland accessibility since they neither have rail nor a sufficient oil pipeline connections (in the latter context, perhaps with the exception of Neka). Bandar Anzali, the biggest Iranian oil port in the Caspian Sea only has a combined gas and oil pipeline connection with the interior. Crude oil is discharged from tankers and pumped into trucks for further transport, a costly and highly inefficient procedure.

2.5.1.7 Some Remarks Concerning Tariffs

The Kazakh government is highly interested to see ACSP prosper. Therefore, routing of cargo through ACSP is being rewarded by discounts of up to 50 percent off the official rail tariffs. Discounting is expected to remain in place for a long time, since not only does ACSP profit from this measure (the port expects in 2000 to double the 1999 dry cargo throughput enabling the port to start repaying the 150 million Euro EBRD loan from its own revenues) but also Kazakh Railways as the route via Aktau enables Kazakh Railways to sell more rail-km than on any other transit route, which looks good from a statistics angle.

Many transport users agree that as of today, moving cargo over the TRACECA route is very expensive by any standards. Local transport experts quoted typical prices: to ship a railway wagon from Turkmenbashi to Baku by ferry costs about US-\$ 620 (US-\$ 31 per metre), to ship a trailer including truck from Aktau to Baku costs about US-\$ 560 (US-\$ 35 per meter). From Aktau/Turkmenbashi via Baku to Batumi the total costs for transport and handling amounts to about US-\$ 50 per tonne of crude oil.

2.5.1.8 Summary of First Findings

To sum up, the first results of the initial visit indicate that until the region has caught up with the industrialisation process it would appear to be difficult to generate and direct sufficient volumes of dry cargo to employ additional dry cargo vessels in the Caspian Sea. Kazakhstan and Turkmenistan are increasingly looking east for trade relations while Azerbaijan is more inclined to trade with the west. The cargo volumes exchanged between these states are fairly moderate. In addition, dry cargo movements in the east – west and west – east directions on the TRACECA route will constantly feel the competition through Russian and Iranian efforts to improve relations with the CIS states east of the Caspian Sea. It seems that dry cargoes increasingly endeavour to bypass the Caspian Sea, or at least the ports of Baku and Turkmenbashi, since this route is

deemed unreliable and costly. The rapprochement between Russia and Iran may stimulate the north-south/south-north trade across the Caspian.

The transport of oil by tankers as an alternative to pipelines which are yet to impact on the trade, has repeatedly been mentioned as the obvious solution and seems to hold most promises for the establishment of new services or a new shipping venture. Moving oil and oil products in tankers of about 5,000 tdw is not economic but there do not at present appear to be any other, and more viable, alternatives, pending the advent of new pipelines (the existing pipelines lack the capacities of coping with large quantities of oil and oil products). Thus, shipping of crude oil in small tankers most probably will only be a strategic alternative to prevent the owners of existing pipelines to take advantage of their monopolistic position. So as to obtain a more precise idea of oil transport in the Caspian region the consultants expect to be given access to the findings of their colleagues dealing with Module E.

The consultants have sighted the feasibility study of Module C which has generated a traffic forecast for Aktau port and which will be taken into account by the consultants when evaluating the forecasting results of Module A.

2.5.2 Availability and Operating Costs of Vessels

The initial visit has confirmed the consultants' assumption that the tonnage currently operating in the Caspian Sea is fully sufficient to accommodate the existing dry cargo and passenger flows. Moreover a substantial proportion of Caspian Sea tonnage is currently in lay-up (this term is deemed to include ships which are not in an operational condition) and the two shipping companies of the beneficiary countries operating in the Caspian have sent part of their dry cargo fleet to the Black and/or Mediterranean Seas due to an acute lack of dry cargo in their home waters. Consequently, even at this stage of the project it is evident that in the short to medium term considerably larger volumes of dry cargo (irrespective of commodity groups) than today can be transported across the Caspian Sea, in ships owned by beneficiary countries.

In the medium and long term much depends on the condition of the present fleets and on the development of dry cargo volumes and possible changes in the composition of types of cargo. This can be discussed in greater depth once the traffic forecast to be provided by Module A materialises.

The above comments are based on information on cargo flows which the consultants have been able to collect during their recent trip and which stand to be compared with the conclusions drawn by Module A. It is pertinent to record here that the ToR for Module B specifically mention the carriage of oil across the Caspian Sea, even though that subject has been assigned to Module E. Not wishing unduly to duplicate work and safe in the knowledge that Module E is bound to produce the required information, the consultants have quite purposely until the present not devoted much time to produce data on oil transportation. However, the consultants have carefully noted whatever information they came across on oil transport, be it by ship or via pipelines or by rail, and have used such data as well as information from their archives in order to make the Inception Report as meaningful as it can be at this stage. Of the three oil-producing recipient States, only Azerbaijan owns tankers. The absence at the time of the consultants' visits, of trans-Caspian pipelines which all experts agreed will continue for the next few years leaves currently Kazakhstan and Turkmenistan with virtually no options to ship their export crude (or derivatives) other than by Azeri-owned tankers, or by rail using Azeri-owned ferries. The only other alternative is to make use of a pipeline linking Kazakhstan with the Russian Black Sea port of Novorossisk. Against this background it is perfectly understandable that Kazakhstan and Turkmenistan desire to become independent – if that is the suitable term considering the circumstances- in respect of moving their oil to the market, and consequently entertain firm plans to establish tanker fleets of their own.

CSC has not ordered any tanker or dry cargo newbuildings for a number of years and a substantial part of its fleet is already, or will be within short, over-aged in international insurance terms. Kazakhstan intends to buy or charter a tanker, but nothing has been decided yet. Only Turkmenistan has recently ordered one tanker of 5000 tdw to be built at a Turkish shipyard and entertains ideas to order two more. Running costs of vessels (i.e. the costs of the ships 'as is', excluding operational costs) are in the process of being compiled. The shipping companies in the recipient countries have not been very generous in supplying relevant data, and it seems that the consultants will to an extent have to rely on unofficial sources. It is safe to say that the present CSC fleet is not burdened with capital costs. Crew wages tend to be on the low side by EU standards, even though the ships carry very large crews, again by Western standards. Spare parts for ships built during the USSR regime are difficult to come by and have to be paid for in hard currency. Another major part of ship running costs is insurance premiums. The consultants endeavour to obtain market information on the actual insurance cover of the existing Azeri and Turkmen fleets but cannot at this stage forecast any results. Operational costs, i.e. port dues, pilotage etc. charges, and cargo handling charges tend to be a function of the relevant vessel's flag. The port authorities and shipping companies interviewed unanimously stated that ships of the national flag are generally charged lower rates than foreign-flag vessels, perhaps somewhat less so in the case of cargo handling. This may be seen as a (mild) form of flag discrimination but seems to be considered perfectly normal in the region. Reliable information on the ready availability and on the price for bunkers (i.e., fuel oil) is yet to be supplied by several sources.

The consultants were given to understand that the monopoly situation of CSC has had a marked influence on that company's manner of settling invoices, and more than one service provider complained about long overdue balances.

2.5.3 Technical Constraints on Safe Navigation and Operating of Shipping Services

2.5.3.1 Ports

Baku

Baku Port is situated in Azerbaijan, at the western shore of the Caspian Sea at location 40°23' N, 49°51'E.

The Baku port system consists of the installations of Baku International Seaport (Main Area, Ferry Terminal, Timber Port, Passenger Station), the fishing port, several ship yards and marine services installations, and a multitude of jetties of various ownership, all at the Southern shore of the Apsheron peninsular. Also, the port of Dubendi on the Northern shore of the peninsular is part of this port system. Altogether, the navigational district of Baku covers an area of approximately 12 nm by 50 nm.

This area is not only used by vessels visiting the main cargo handling installations but to a great extent by offshore oilfields-related activities. The 50 nm approach to Baku International Seaport consists of a traffic separation scheme with four roundabouts. In the approach, courses must be changed five times and navigation is rather difficult due to shallows near the fairway and low, sandy shore areas, giving bad radar echoes. The aids to navigation along the passage are insufficient and in a very poor condition. A great number of light buoys are extinguished, the lights are broken, radar reflectors have disappeared, top marks are missing, the buoys' colouring and identification marks (both important for correct identification) are unrecognisable.

The Port Control Centre, that is responsible for surveillance of traffic, navigational advice and traffic control, is unable to perform its tasks. It is in an unfavourable location with only a restricted view of the approach area, it does not have binoculars, it does not possess workable radar equipment (even if the equipment would be operational, it could not serve its purpose today because of its age and technical obsolescence), it

lacks GMDSS VHF, medium wave and Inmarsat equipment, and its present VHF, distress and other communication equipment is obsolete and of poor condition.

Auxiliary vessels (pilot boat, tugs, etc) also lack appropriate navigational equipment.

Facilities and materials for environmental protection are not available, the same is true for safety and fire fighting installations.

Oil Terminal Dubendi

The oil terminal Dubendi, part of Baku International Seaport, is situated on the Northern shore of the Apsheron peninsular, at a land distance of 46 km from Baku.

The aids to navigation of the approach channel are in a very bad condition, though the light buoys are all working, while the approach leading lights are out of order.

The Port Control Office lacks even the most basic equipment and is not able to perform its tasks. On the other hand, approaching the harbour at night is very difficult at normal conditions, but in particular in windy conditions, where occasionally a dangerous ground swell runs. In very windy weather, with wind speeds over 17 m/sec which occurs about 30 days a year, the port is entirely closed for navigation.

The port installations are in an unbelievable derelict condition, facilities and materials for environmental protection and fire fighting are damaged, totally disintegrating or non-existent. Even the most basic safety precautions concerning cargo handling are violated: neither emergency fire wires on the vessel for towing were rigged nor bonding wires for earthing were used during discharge, neither spark-proof tools were used by the crew nor did they wear anti-static safety shoes and other protective clothing, and also the obligatory insulation flanges on the oil discharging arms could nowhere be found.

Acknowledging that the oil terminal handles about 250,000 tonnes of oil per month, the present conditions are clearly inviting casualties and disasters.

Turkmenbashi

Turkmenbashi Port is situated in Turkmenistan, at the eastern shore of the Caspian Sea, just opposite of Baku, at location 40°01' N, 52°58'E.

The port is reached via a 15 nm approach channel. After passing through an area of wracks and entering the channel, vessels have to pass between a peninsular and an island. In the approach, the lighted beacon and the leading lights are in a very poor condition, some of them are extinguished. The light buoys in the channel are in a similar condition, most of them are extinguished, their solar batteries broken, their top marks and radar reflectors missing. Also, their colouring and their distinguishing marks are indiscernible.

The Port Control Centre lacks all the basic equipment. There is neither radar for surveillance and traffic control, nor binoculars for visual observation, nor GMDSS equipment for ship-shore communication. Under these conditions, vessels cannot approach the port nor leave it during darkness, and vessels normally await daylight hours for such activities.

Further navigational hazards are conditions of high winds, about 75 to 90 days per year, where the wind speed exceeds 17 m/sec (Beaufort 7). This is especially dangerous for high-board vessels (like the ferries) that tend to "sail" and need to maintain considerable speed in the fairway to keep the vessel steerable.

It appears that there is no equipment or materials for fire fighting, safety and environmental protection.

Aktau

Aktau Port is situated in Kazakhstan, at the north-eastern shore of the Caspian Sea, at location 43°41' N, 51°06'E.

The approach channel from the fairway buoy to the port is about 3.2 nm, of which 1.8 nm are dredged as approach channel. The buoys in the channel are painted properly and fitted with topmarks, lights, sun collectors and radar reflectors. They are moored well and appear to be in good order and condition. The light beacon in the port entrance are in bad order and condition, but still working. A lighthouse is located in Aktau city, it appears well and in good order and condition.

The Port Control Centre is only rudimentary equipped by today's international standards. The available equipment is old and of superseded technology, there is no radar and no binoculars. Also, there is no GMDSS equipment, but this will be installed in the near future (the equipment is already in the port).

The port has a very limited fire fighting and oil pollution combating capability, albeit more than the other ports inspected for this study.

Two oil berths are located at the lee side of the port's breakwater. These berths are presently not in use. Due to the raising sea level of the Caspian Sea, the breakwater is too low in the water and does not offer sufficient protection anymore. All installations on these berths seem to be damaged or corroded by seawater, including the fire fighting and pollution combating units.

Measures for the Improvement of Nautical Safety

According to the Consultants' investigations so far, the following measures for the improvement of nautical safety in the ports of Baku, Dubendi, Aktau and Turkmenbashi are proposed.

All Port Control Centres need to be equipped with appropriate radar surveillance equipment.

Baku port, with its large navigational area and including Dubendi port and approaches, would need at least four 10-cm Radar units with the antennas located strategically in the entire area as well as one 3-cm unit each for direct port services in Baku and Dubendi. The displays of radar units must be fitted with ARPA (Automatic Radar Plotting Aids) and be located in the Port Control Centre. Dubendi needs additionally one monitor (only) for the 10-cm radar chain.

Turkmenbashi, with its much shorter approach, needs one 10-cm radar unit with the antenna located on the peninsular for most efficient coverage and the monitor located in the Control Centre. They also need one 3-cm unit for direct port service. The monitors must be ARPA equipped.

Aktau, with the most simple approach of all ports visited, only needs a 3-cm radar with ARPA unit. The antenna can be located on the port administration building.

All three ports, or more exact, the area between them, should be covered by DGPS (Differential Global Positioning System). It appears to be possible, but that must be further investigated, that the area can be served by one reference station only. The location of the station would ideally be at the most southern tip of the Ka-

zakh Caspian coast. Additionally, it must be investigated if others, like oil companies, authorities, the armed forces, etc., use already DGPS in the area and if their frequencies could be opened to commercial shipping.

Each Port Control Centre in Aktau, Baku and Turkmenbashi must be equipped with GMDSS (Global Maritime Distress Safety System) receivers and transmitters with decoders for VHF and MW. This equipment is world-wide mandatory since the 1st of February, 1999. The centres also need some VHF hand-held radios and voice recorders.

Aids to navigation are generally in a very seriously deteriorated condition in all ports and navigational areas with the exception of buoys in Aktau. Lighthouses, beacon and leading lights need major overhauls or, in some cases, outright replacement.

Of the buoys, all need rehabilitation; in Baku, quite a number need replacement because they are beyond repair. They all need to be refitted with appropriate lights, sources of energy, topmarks and fog horns (if necessary).

Also, it needs to be ascertained that the positioning and the marking of the buoys corresponds to the requirements of the IALA system for Region A that includes the Caspian Sea. Also, it should be ascertained that all aids to navigation are still properly located, of the prescribed type and of the most efficient characteristics in view of today's requirements.

It is suggested that some aids to navigation in all ports, in particular in the Baku navigational area, are fitted with racons (radar transponder).

The Consultants were not able yet to determine the exact requirements for buoy yards, aids to navigation workshop, buoy laying vessels and other service requirements in the individual ports.

Also, the exact requirements for pollution protection and oil spill fighting equipment and materials must be investigated further in detail.

The Port Control Centres need meteorological equipment for wind velocity and direction, as well as receiving equipment for weather reports and weather charts.

They will also need a PC computer with Internet capability and printer.

2.5.3.2 Survey report of three vessels of Caspian Shipping Company

In June 2000 the Consultants inspected three vessels of Caspian Shipping Company in order to assess the availability and condition of vessels serving the Caspian Sea ports. The two ferries MV "Akademic Tochi-bashev" and MV "Mercury 2" were inspected during a trip on the ferries and the tanker MT "General Heydarov" during a stay in the port of Dubendi.

All three vessels were found to be in very bad conditions regarding all aspects of ship operations as well as regarding safety and environmental protection equipment and also concerning the mental awareness of the crew regarding these matters.

Mandatory inspections and safety checks on safety equipment had not been executed for a long time. The safety equipment was in all cases in very bad condition and often not in working order. Partly the vessels sailed without a full set of necessary certificates and permits. Also the navigational equipment was not up to

international standard and requirements. Their physical and certificative conditions were in clear violation with international conventions and regulations. For detailed reports on these three vessels see Annex 5 to this report.

It can be assumed that the condition of the three inspected vessels is not an exception but rather the rule as far as the ships operated by Caspian Shipping Company are concerned. A total overhaul and maintenance of all vessels seems to be urgently necessary, especially if the states at the Caspian Sea are going to seriously implement all international maritime conventions and regulations that they acceded to. Therefore, it has to be stated that although for the time being the capacity of the ships serving the Caspian Sea is sufficient and all cargo presently in need of transport can be shipped. But in the near future, there will be an urgent requirement to rehabilitate and up-grade the vessels and their safety equipment. It can be anticipated that, whenever the governments or Caspian Shipping Company itself will start to implement all existing regulations, there will occur a shortage of ferry vessels and tankers on the Caspian Sea.

Furthermore, although theoretically the crews on the ships are properly and sufficiently trained and educated, presently their motivation and performance, due to the existing working conditions and the insufficient salary, is very low. This poses a high risk for safety and also for environmental protection.

2.5.4 Personnel, Training

The consultants have visited and examined the major marine training institutions operating in the beneficiary states.

The consultants are in the process of analysing and evaluating the data and information collected.

2.5.5 Establishment of a Management Structure

With regard to the management structure of existing shipping companies in the beneficiary states the consultants can state the following: From the information thus far available the consultants are led to believe that the management structure of CSC has largely remained identical with that found at the last in-depth investigation conducted for the European Commission in 1993/94.

TML is basically structured in accordance with the traditional Eastern Bloc type of company (cf. chapter 2.5.6).

The new Kazakh shipping company is likewise going to be a part of an organisation comprising all state-owned maritime activities, i.e. shipowning; the port or ports; shipping agencies; and virtually all other shipping-related services including repair yards, etc.

The Terms of Reference require the consultants to investigate the possibilities open to foreign interests, (i.e., mainly EU shipowners and/or operators) to take an active part in Caspian Sea shipping. Accordingly, a number of selected German tank shipping operators was surveyed but the response was less than enthusiastic

2.5.6 Legal, Regulatory and Political Environment

The analysis of information received during interviews with the parties mentioned in Annex 1 has led the consultants to draw the following preliminary picture of the current legal, regulatory and political conditions under which the Caspian shipping business is operating.

The status of the Caspian Sea in international law has yet to be established, though there are some initiatives backed by Russia and the Iran to push for further negotiations. The key problem of such negotiations is not related to shipping but to the allocation of natural resources that are confirmed or assumed to be located in the Caspian basin. In line with the Terms of Reference the consultants have concentrated their investigations on matters related to transportation, but they will say here that the question of politics plays an important part also where shipping operations in the Caspian Sea are concerned.

The status of the Caspian Sea has a bearing on the regional validity and enforceability of international shipping rules, regulations and conventions such as, e.g., SOLAS to mention but one. The information received in the course of the interviews indicate that the three beneficiaries have adopted certain international shipping rules and conventions, but the consultants strongly feel that a great deal remains to be done in Kazakhstan and in Turkmenistan to make those dealing with shipping aware of the complexities and consequences of such rules and regulations.

Closely related to the question of the status of the Caspian Sea is the problem, for other than Russian-flag ships, of transiting the Volga-Don Canal. The consultants understand that foreign flag ships have to apply for permission, in Moscow, to transit the Canal, and the charges for using this waterway including pilotage etc. are extremely high. It would appear that the Russian authorities discriminate against foreign vessels by often delaying their reply to applications for a transit permit, and by charging excessive dues. This applies to all ships other than Russian. One figure mentioned was a total of USD 34,000 for a single passage of a 3,500 tdw dry cargo vessel, in ballast, i.e. not carrying cargo. Another source put the transiting costs nearer USD 42,000 for the same type of ship, also in ballast.

The Caspian Sea may be described as being land-locked except for the navigable Volga-Don Canal linking the Caspian Sea with the Black Sea. Until such time as the status of the Caspian Sea has been permanently settled and the question of access to this large inland waterway satisfactorily resolved, Russia will continue to exercise complete control over ships using that Canal. Ships owned by Caspian littoral states and/or by shipowners residing in those states and wishing to transit the Canal are subject to Russian regulations, as are ships owned by EU and/or other shipowners. This is tantamount to flag discrimination as exemplified by the level of transit fees currently charged by the Russian administration. Given this scenario and in view also of the unreliable legal background in the beneficiary states concerning foreign investment, it is perfectly understandable that EU shipowners are reluctant to consider active involvement in the region.

With respect to the legal basis for commercial shipping, both Kazakhstan and Turkmenistan are currently considering drafts for national commercial shipping codes in the respective Cabinets of Ministers and Parliaments. The consultants were advised that both countries have based their drafts on the existing Russian commercial shipping code but have modified them to suit the requirements and the specific situation of shipping in the Caspian basin. Both countries stressed that their proposals in the current draft form embrace internationally accepted rules, regulations and conventions. The consultants at this stage of the project cannot offer further comments on the subject since the information they gleaned on legal matters was vague. Thus, the consultants were not able to verify if and in how far the Draft Maritime Code proposed in the "TRACECA Legal and Regulatory Framework" (Completion Report, Appendix 2 Volume 2, February 1998) has been taken into account. Experts of the beneficiaries admitted that most probably there is room for improvement to what is currently before the relevant legislative bodies.

The consultants wish to draw attention to the fact that ships registered in the Russian ship registry do not qualify for financing by most of the western financing institutions (except for EBRD). In this context the consultants will elaborate a short paper which sets out the basic requirements for future shipowners if the same intend to seek loans from western banks.

Virtually all vessels at present operating in the Caspian Sea are registered in the Russian Register of Shipping, excluding of course those flying the Iranian flag. The same applies to classification. So far as CSC is concerned there is reason to assume that part of that fleet is out of class.

Port State Control in the sense it is defined in the EU and elsewhere in the world is not being implemented in the Caspian region. The consultants assume that PSC has not been fully understood by those concerned in the Caspian region. Any inspections carried out in Caspian ports, by port authorities, are more concerned with administrative procedures and would appear to be cursory.

In Azerbaijan, CSC and BISP, both being state-owned, are formally independent entities since 1993. There appears to be an isolated interest advocating the re-merging of both institutions, but the Azeri Cabinet of Ministers has not supported this idea. In the absence, to date, of an Azeri Ministry of Transport, CSC and BISP both have the status of a maritime administration with CSC having more political influence and clout. The consultants have been told that CSC exploits its quasi-monopoly position in the principal Caspian port, i.e. Baku, and there appears little the port authority can do about it even though it would welcome the emergence of more (competing) shipping services. At the time of the consultants' visit, one of the two only port agencies in Baku licensed to handle ships is owned by CSC, and applications by other agency companies are subject to the approval of the national carrier in its capacity as the national maritime administration.

Currently, a Tacis project on the "Reorganisation of the Transport Sector Administration in Azerbaijan", which aims at the establishing of a Ministry of Transport in Azerbaijan, is under way. The consultants expect substantial changes to the a.m. situation once the proposals elaborated in this Tacis project have been successfully implemented.

A similar situation prevails in Turkmenistan, where the old Comecon type of corporate structure is still in place. All ports in Turkmenistan are administered by the state-owned Turkmen Maritime Line, which is also serving as the national maritime administration and to that extent takes on the duties of the MoT.

The national carrier is i.a. responsible for the licensing of shipping agents, and hardly interested to license any other agents.

Like certain other Caspian States Turkmenistan practices flag discrimination by charging concessionary port etc. dues to national-flag vessels but since the number of TML vessels is very small (currently only two dry cargo vessels are operating in the Caspian) the negative impact on competition can be considered negligible. In the Kazakhstan Ministry of Transport, all aspects of water transportation are being handled by a Sub-Department (10 staff) of the Department of Economic Regulations. All ports as well as the newly founded shipping line, Kazmortransflot (which is not operating yet) report to this Sub-Department, but the grip does not appear to be very firm. Thus, there is a chance that the maritime and especially the shipping sector may develop under different, i.e., somewhat more commercial, conditions than in the other beneficiary states. The ACSP as a Government-sponsored project enjoying a high degree of preference owes much of its present dry cargo throughput to the tariff policy of Kazakh Railways favouring Aktau. This helps the port to repay from its revenues the loans granted by the EBRD, but it also means that substantial volumes of cargo are being deviated, away from routes such cargo would be using if no rate-rebating took place. Such deviations directly affect rail traffic ex northern Kazakhstan to western destinations, and the movements of cotton from Uzbekistan via Aktau rather than via Turkmenbashi. Port management is confident that soon the port will be given a degree of freedom when negotiating port etc. dues with clients.

Co-operation between the beneficiary states in the water transportation sector is yet at an early stage. The willingness of administrations jointly to find solutions to problems however simple is not very strongly developed. Azerbaijan dominates the Caspian shipping scene through CSC and is not willing to share this market with others. Turkmenistan apparently does not recognise the TRACECA corridor as a means of developing the country, or the Central Asian region for that matter, and seemingly is more interested in extending its commercial contacts with East Asia. Kazakhstan with its oil reserves and those parts of its industry it has inherited from the USSR has an interesting cargo potential but for its trans-Caspian dry cargo export volumes entirely depends on subsidised rail tariffs, as discussed above. Considerable quantities of Kazakh semi-finished metal exports move to Iran, and predominantly in Iranian ships. The country appears to accept the CSC monopoly of the trans-Caspian ferry services, as does Turkmenistan, but is determined to invest into its own tanker fleet. The consultants feel that discussions between the Russian company, Volgotanker, and the Kazakh MoTC have reached a stage where there is little chance for EU participation, at least at the present stage.

To sum up, the preliminary analysis of information gathered during the initial visit indicates that the current legal, administrative and political environment prevailing in the countries visited is not conducive to the implementation and establishment of competitive market structures. The maritime sector is strongly dominated by state-owned companies and institutions and subject to discretionary politico-strategic interests rather than governed by sound economic and commercial principles. Flag discrimination in the manner described is considered to be normal practice and an adequate means to promote the national shipping line. This should be seen against the background of countries rich in terms of mostly untapped oil and gas reserves but with very limited manufacturing capacities. The countries are far removed from potential markets for their main exports and face numerous and substantial difficulties to overcome this drawback. East-west movements of dry cargo, the backbone of the TRACECA philosophy, currently tend to be restricted to imports of manufactured goods, mostly of European and United States origin, with very modest quantities going west. Multiple handling which is associated with trans-Caspian/trans-Caucasian/ trans-Black Sea cargo routes increases overall transport costs, and border crossings are time-consuming and vastly more expensive than in other parts of the world. Iran in the south and Russia in the north of the region are strong competitors for cargo moving overland, both by road and by rail.

2.5.7 Business Plan

The preparation of a Business Plan will draw on the information, investigations, analyses and data bases secured in the preceding tasks. The consultants reiterate that the preparation of a business plan only makes sense provided some vital questions raised in the preceding tasks can be answered positively, e.g. will there be a sufficient cargo base to support further shipping services or lines on the Caspian Sea? Also, without determined commitment on the part of the Governments of the beneficiary States to the TRACECA corridor – expressed, e.g. by the States' willingness to adapt, where appropriate, the relevant legal and regulatory regimes- the chances for establishing new and commercially viable shipping services in the Caspian Sea appear to be remote. However, should further investigations support the idea of creating new shipping services, then qualitative investigations into the relative merits of introducing competitive structures to the Caspian shipping sector (e.g. economic benefits of lower transport prices for customers vs. the economic costs of ruinous competition between shipping lines) will have to be undertaken.

As at this stage of the project no reliable and stable results with respect to the many questions and problems can be presented since the consultants are yet to receive the results from Module A as a vital tool for their own work. It is, therefore, too early responsibly to discuss the possible outcome of the deliberations which will flow from the evaluation of that very basic piece of information for a shipping service: the cargo flows, past, present and future.

3 Module B Planning

3.1 Relation with other Modules

According to the Terms of Reference, Module B was supposed to receive direct input from Modules A (cf. Module B, chapter 4.1.2) and E (cf. Module B, chapter 4.1.3). In fact, Module B is also closely linked to Modules C and D since the results obtained there may have a considerable impact especially on the technical feasibility of establishing new shipping services or lines on the Caspian Sea. So far, the Consultants can draw on some information provided by Module C, which is close to finalisation.

3.2 Relation with other Projects

The consultants have contacted Dornier Systems, the consulting company contracted by the Commission to produce proposals for the "Reorganisation of the Transport Sector Administration in Azerbaijan". The proposals in that study will also concern the establishment of a new Maritime Authority for Azerbaijan. Therefore, the output from that study is considered valuable information for the investigation on the legal, regulatory and political environment affecting shipping on the Caspian Sea as requested in Task 6 of Module B. In order to obtain more and updated information on the progress and planned time schedule of this project, Mr. Sames and Mr. Bellstedt have met Mr. Bodo Rössig, Dornier's team leader in Baku on 17 May 2000. The information gained during this meeting have persuaded the consultants to base their work for Task 6 of Module B on the findings of Dornier's work concerning the establishment of a new maritime authority for Azerbaijan. Thus, the wasteful duplication of work can be avoided.

Furthermore, the consultants have met Mr. Kees Lanzaard and Mr. Mehman Abasov from Tebodin, a consultant company currently providing technical assistance to the Baku International Sea Port financed by EBRD. Finally, in Turkmenbashi, the consultants met representatives of Haskoning/Gem (Mr. E. van Randwijck, Mrs. G. Sapardudyeva, Mr. J. Dekkers), a consortium currently providing technical assistance to the Port of Turkmenbashi, also financed by EBRD. During both meetings the consultants obtained valuable information concerning the current and future rehabilitation and extension plans of the respective port infra- and superstructure.

In addition, the consultants have identified and reviewed i.a. the following studies, material and information related to the comprehensive fulfilment of Module B's tasks:

- Development of Caspian Shipping Company, Azerbaijan, Final Report, Tacis, 1995
- TRACECA Legal & Regulatory Framework, Completion Report, 1998
- Internal Russian Waterways and River-Sea Transport Project, Tacis, parts of several reports, January 1999
- TRACECA Intermodal Services, 1999 (ongoing)
- Basic Multilateral Agreement on International Transport for Development of the Europe-Caucasus-Asia Corridor (including Technical Annexes on International Road Transport, Customs and Documentation Procedures, International Commercial Maritime Navigation, International Railway Transport), Baku 7-8 Sept 1998
- TRACECA Traffic and Feasibility Studies Module C: Redevelopment of Aktau Ferry Terminal, Kazakhstan, Inception Report 1999, Final Report 2000

- Joint Study on Caspian Oil Shipping, National Iranian Tanker Company and Shell International Trading and Shipping Co., SWAP Project 1999.

3.3 Obstacles Encountered During the Inception Phase

Obstacles relate to the very lukewarm support of project objectives and activities by the beneficiaries. From the interviews held with local transport experts from various Azeri companies, both public and private, the consultants gained the impression that the Azerbaijan State as owner of Caspian Shipping Company (CSC), the biggest shipping company operating in the Caspian Sea, will consider all activities aiming at establishing new shipping services as a threat to the quasi-monopoly of CSC, and therefore as directed against the interests of Azerbaijan. Furthermore, it was confirmed that the Baku International Sea Port (BISP), the only TRACECA port on the Caspian west coast (i.e. another Azeri "monopoly") is under pressure to grant preferential rates to CSC and to lower even those rates on demand.

There is an indication that representatives of Azerbaijan transport institutions consider themselves to momentarily control two monopolies on the TRACECA route.

It seems that since the time shortly after the disintegration of the former Soviet Union, when Azerbaijan claimed all former USSR vessels registered in Baku as belonging to the Azeri State, progress in the development of Azeri transport policy has been moderate. Though considerable EC funds have been dedicated to developing and co-ordinating transport policies within the TRACECA region, significant returns are yet to evolve.

Under these circumstances it is hard to see what could stimulate national interests in the present Module B other than having some control over outputs not in line with the current national transport policies.

Like in Azerbaijan, in Turkmenistan the consultants were treated in a way which left little doubt over the importance which the beneficiary country attaches to the present project. The consultants went out of their way to obtain an appointment with a representative of the Cabinet of Ministers, but failed. One appointment was cancelled at short notice. The consultants then changed their plans and proceeded from Ashgabad to Turkmenbashi by car rather than by air (i.e., they spent some 13 hours on the road), returning very late on the same day, the objective being to be available for an interview on the following day, of which the Ministry was aware. That day elapsed with the consultants on stand-by in their hotel, until they had to leave for Europe. Fortunately, the consultants were at least able to meet as one state representative the Vice President of Turkmen Maritime Lines.

Turkmenistan has four dry cargo ships owned by Turkmen Maritime Lines of which two are trading in the Mediterranean due to a lack of cargo in the Caspian Sea. From the information the consultants gleaned it seems not very likely that Government will welcome assistance. It is felt that any such assistance would have to be of a financial nature, as opposed to being in line with the objectives of the present study (i.e., identifying markets and giving management support). The consultants were told quite clearly that once Turkmenistan has acquired additional vessels (with foreign finance), there will be no room for the participation of a foreign shipping company in the day-to-day business of the state-owned company.

Kazakhstan is well aware that the country depends on efficient transport techniques to move its exports, crude oil and derivatives, to overseas markets. So far, Kazakhstan uses CSC tankers for shipping crude oil via Baku to the world markets. Major oil finds in the northern, Kazakh sector of the Caspian Sea adds to the need of securing independent means of transport. At present Kazakhstan is the only Caspian State not owning any sea-going ships. The country also lacks the skills for, and the experience of, running a shipping company. Not surprisingly, the present Module B was specifically requested by this country. The time be-

tween the initial expression of this requirement and the actual start of the present project has been rather long. There are clear indications that in the meantime, not only has a shipping company been established, but also talks with the Russian tankship owners Volgotanker on establishing a (49%-51%?) joint-venture have since made considerable progress. Information on this topic was scarce and partly incoherent. The absence of shipping expertise in the country makes Kazakhstan vulnerable to being exploited by third parties which was apparent from a number of statements made during interviews. Kazakhstan is primarily interested in moving its oil to market, which includes shipping oil across the Caspian Sea to Baku or to other ports of discharge. The commercial viability of the shipping company as such would appear to take second consideration after the main objectives of reducing the country's dependence on CSC tankers and of gaining a degree of transport independence, however modest.

Furthermore, last years re-shuffling of staff within the Kazakh MoTC has brought new persons into key positions, some of whom are yet to familiarise with the objectives of Module B.

The upshot of the investigations made in the course of the initial visits may be summarised as under. In making these comments the consultants readily admit that they have had to piece together, puzzle-fashion, the various bits of information received from interview partners of varying degrees of seniority. In two countries, representatives of the beneficiary countries were not available for discussions. To that extent, therefore, the preliminary conclusions hereunder stand to be corrected.

- a. Support for the objectives of Module B from beneficiary countries is either conspicuous by its absence, as in the (understandable) case of Azerbaijan, at a very low temperature (Turkmenistan), or lukewarm (Kazakhstan).
- b. Turkmenistan already has a state-owned shipping company which is in the process of being expanded, whilst Kazakhstan is on the verge of taking an active part in Caspian Sea shipping.
- c. The two countries mentioned under item b. immediately above appear to be lacking professional shipping expertise.
- d. Neither country has displayed an interest to consider EU shipping company participation in Caspian shipping.

Pending large-scale privatisation moves across the economies of the three beneficiary countries, it seems unlikely that shipping activities for the foreseeable future will be other than strictly state-owned.

3.4 Proposed Work Plan after the Inception Phase

Much will depend on the response of the beneficiaries to the contents of the Inception Report. If any or all of the beneficiaries decide to support the objectives and activities of the present Module B then the consultants will proceed as proposed in the work plan attached in Annexes 2 and 3. As soon as a reliable and sound cargo forecast is available, the consultants will identify the major transport routes across the Caspian and will determine the route or routes offering room for new or additional services. Furthermore, the consultants shall investigate whether and to what extent competition on these routes is commercially called for, and feasible and the prevailing circumstances. This work should be completed by the beginning of September 2000, always providing the timely receipt of the views of the beneficiary countries.

If there routes justifying further investigations have been identified, then the consultants will in discussions with the beneficiaries determine the service(s) or shipping line(s) which have the best potential. The consultants will then analyse the legal, regulatory and political environment under which such service(s) or shipping

line(s) could operate and discuss any obstacles identified with the Intergovernmental Joint Commission if already established. This stage is scheduled to be completed by the end of September.

Based on these findings the consultants will work out a proposal for management structures until the middle of October and discuss the same with the beneficiary states. The last stage will be the proposal of a business or feasibility plan which is estimated to be ready for submission in draft version towards the middle of December 2000.

Should the beneficiary countries decide not to support Module B, the consultants propose to change the Terms of Reference for Module B since the original objectives of Module B can no longer be achieved. It is proposed instead, within the given budget for Module B, to focus on the provision of shipping management assistance to Kazakhstan and Turkmenistan. Depending on the structure of the proposed Kazakh/Russian joint venture company, Kazakhstan is likely to gain from such assistance. More information is required from Turkmenistan concerning the structure of its shipping company before a similar statement can be made in respect of that country.

Conceivably, the consultants could provide direct or more remote assistance to the Kazakh MoTC in its negotiations with the Russian company interested in establishing a joint-venture with Kazmortransflot. The consultants are convinced that against the background of a low level of shipping expertise in Kazakhstan this type of technical assistance could be of great value to the beneficiary state, the more so since the proposed joint venture partners are highly professional.

Another aspect requiring attention is the necessity, as the consultants see it, for divorcing ship-owning and ship-operating from other maritime activities such as ports, cargo handling/ stevedoring, ship agency work, towage, pilotage, ship repairs, ship-handling, etc. The concept of lumping together all maritime activities is clearly obsolete. It may have had its advantages under the COMECON regime but, if only for the sake of eliminating the very real possibilities of serious clashes of interest, should now make room for the basic principle of division of labour.

Alternatively, the consultants propose to reallocate some resources of Module B to the improvement of nautical accesses to the ports of the three main beneficiary countries. The consultants may specify necessary technical equipment (radar, buoys etc.) and prepare tender documentation meeting the requirements of international financing institutions.

Due to circumstances beyond the consultants' control the following changes/specification of staff assignments of foreign experts have been initiated:

Mr. Jochen Schmidt, maritime and nautical engineer, replaced Mr. Werner Korbas, who left UNICONSULT on short notice to start his own business. Not only is Mr. Jochen Schmidt an adequate replacement for Mr. Korbas, he also has considerable experience in the field of human resource development. Therefore, the consultants propose to allocate some of Mr. Schmidt's time budget to Task B4: "Personnel, Training" at no extra cost to the contracting unit

The changes to the staffing of foreign experts together with the information gained during the first phase of investigations have led the consultants to review the work plan and time schedule as explained in the Technical Proposal

3.5 Risks

Having reviewed and carefully weighed the information gathered during the initial visit to the beneficiary countries, the consultants see the risk that at least in the medium term there is insufficient cargo to justify the

establishment of new dry cargo shipping services or new shipping lines. The carriage of oil requires a different outlook and does hold certain perspectives even if it is uneconomic to carry crude oil in tankers of no more than 5,000 tdw. The Caspian oil (and gas) scene is highly complex and fraught with economic and political difficulties. Any oil exporting country in the Caspian region wishing to enter the tanker business must realise that the venture may be short-lived since pipelines, once in operation, offer substantially lower transportation costs than small tankers. Tankers of the size currently deployed in the Caspian Sea will find it next to impossible to obtain remunerative freight rates outside the region if and when they have been replaced by pipelines. Having made these comments, the consultants reiterate that they depend on the findings of Module E before they can elaborate further on this multi-faceted subject.

There is the risk that findings will clearly spell out that the establishment in the Caspian Sea of new and commercially viable shipping services of whatever kin is impossible, and will render business plans quite superfluous.

Another aspect bearing the risk of losses or even of failure is the apparent lack of co-operation between the three main beneficiaries in terms of maritime transport policy.

The consultants opine that a greater measure of co-ordination will have beneficial results for all three countries under review. Continued hostile competition leads to losses for all concerned.

Finally, the beneficiaries' reluctance to co-operate with the consultants in a study designed to benefit the three countries, the apparent unwillingness to supply information of a purely technical nature (as opposed to secrets, commercial or political) may force the consultants to rely on second-hand information which bears the risk of leading the consultants to wrong conclusions. This cannot be in the interest of the beneficiaries provided they are truly willing to promote transport on the TRACECA corridor. The consultants will add that naturally a study of existing and possibly new shipping services in the Caspian Sea requires an open-minded approach, and consequently, actual and potential cargo flows moving north-south or v.v. instead of east-west and v.v. deserve, and will be given, equal degrees of attention throughout the duration of the investigations.

4 Annexes

- Annex 1 Meeting Schedule
- Annex 2 Revised Time Schedule for Module B: New Caspian Sea Shipping Services
- Annex 3 Revised Expert Schedule for Module B: New Caspian Sea Shipping Services
- Annex 4 Nautical Approaches to Ports at the Caspian Sea
- Annex 4 Survey Report of three Ferries of Caspian Shipping Company

ANNEX 1: Meeting Schedule

Contact person	Position	Location	Date
Mr. Mamedov	Director of BISP	Baku International Seaport, Azerbaijan	16 May 2000, 12.30-13.30h
Mr. Soltan Kazimov	Chief Engineer of BISP		
Mrs. Emilia Agaeva	Azeri Transport Expert	Baku International Seaport, Azerbaijan	16 May 2000, 13.30-14.00h
Mrs. Raya Gasimova	Head of Economic Department of BISP	Baku International Seaport, Azerbaijan	16 May 2000, 14.00-15.30h
Mr. Rafail Mirgulamov	Head of Commercial Department of BISP	Baku International Seaport, Azerbaijan	16 May 2000, 16.30-17.30h
Mr. Boris Smolin	Advisor Tacis CU Azerbaijan	Tacis Coordination Unit, Baku, Azerbaijan	17 May 2000, 11.30-12.30h
Mr. Mahir Kazimov	Tacis Transport&Telecommunication Expert		
Mr. Bodo Rössig	Team Leader of Tacis Project, Dornier Consult	Hotel Azerbaijan, Baku, Azerbaijan	17 May 2000, 13.30-14.30h
Mr. Vakhid Aliev	Managing Director of Inflat Shipping Agency	Inflat Shipping Agency, Baku, Azerbaijan	17 May 2000, 15.00-16.00h
Capt. Chingiz Teymurov	General Manager, Transmarine Shipping Ltd.	Transmarine Shipping Ltd., Baku, Azerbaijan	17 May 2000, 17.30-19.00h
Mr. Fuad Rasulov	Azeri Shipping Expert	Hotel Azerbaijan, Baku, Azerbaijan	18 May 2000, 09.00-12.00
Mr. Marc Graille	Traceca Management Team	Hotel Azerbaijan, Baku, Azerbaijan	19 May 2000, 13.30-14.00
Mr. Kees Lanzaard	Team Leader of Tacis Project, Tebodin	BCEOM Project Office, Baku, Azerbaijan	18 May 2000, 14.00-15.30h
Mr. Mehman Abasov	Manager Caspian Region, Tebodin		
Mr. Musa Panahov	Deputy Chief of Azerbaijan State Railways	Azerbaijan State Railways, Baku, Azerbaijan	18 May 2000, 16.00-16.45h
Mrs. Nazaket Panakhova	Manager Oil Tanker Department of CSC	Caspian Shipping Company, Baku, Azerbaijan	19 May 2000, 11.00-12.00h
Mr. Alexander Bogdanchikov	Head of Department of Fuel Consumption, Exhaust Emission and Exploitational Materials	NIIT Research Institute of Transport, Almaty, Kazakhstan	22 May 2000, 11.00-12.00h
Mrs. Violetta Kurchenkova	Kazakh Maritime Transport Expert, NIIT	NIIT Research Institute of Transport, Almaty, Kazakhstan	22 May 2000, 12.00-12.45h
Dr. Eduard Kaplan	Managing Director of Transsystem Freight Forwarding Agents	Transsystem Freight Forwarders, Almaty, Kazakhstan	22 May 2000, 13.30-14.30h 27 May 2000, 15.00-16.00h
Dr. Murat Bekmagambetov	General Manager, NIIT	NIIT Research Institute of Transport, Almaty, Kazakhstan	22 May 2000, 15.00-16.00h
Mr. Ilya Segal	Deputy Director of the Railway Transport Department, MoTC	Ministry of Transport and Communication, Astana, Kazakhstan	23 May 2000, 09.30-10.30h
Mr. Daulet Saudabayev	Head of the Department for Economic Regulation, MoTC	Ministry of Transport and Communication, Astana, Kazakhstan	23 May 2000, 11.00-12.00h
Mrs. Nina Bolkuneva	Head of the Sub-Department for Investment Projects, MoTC		
Mr. Nicolai Yudin	Head of the Sub-Department for Water Transportation, MoTC		
Mr. Kozhubaev	Deputy Head of the Department for Economic Regulation, MoTC		

Mr. Baurzhan Akhmetov	Legal Department, MoTC	Ministry of Transport and Communication, Astana, Kazakhstan	23 May 2000, 12.30-13.15h
Mr. Abulgasy Kousainov	Deputy Minister of Transport, MoTC	Ministry of Transport and Communication, Astana, Kazakhstan	23 May 2000, 15.00-15.30h
Mr. Serik Baimagambetov	Head of the Department for Monitoring and Co-ordination, MoTC	Ministry of Transport and Communication, Astana, Kazakhstan	23 May 2000, 15.45-16.15h
Mrs. Sophia Aisagaliegeva	Director of the Department of Investment Policy, MoE	Ministry of Economics, Astana, Kazakhstan	24 May 2000, 10.30-12.00h
Mr. Emilio Valli	Team Leader, Tacis CU Kazakhstan	Tacis Coordination Unit, Astana, Kazakhstan	24 May 2000, 13.00-13.45h
Mr. Daulet Kabiyeu	National Director, Tacis CU Kazakhstan		
Mr. Alexander Glock	Deputy Director of Capital Construction and Financial Director, ACSP	Aktau Commercial Seaport, Aktau, Kazakhstan	25 May 2000, 10.00-10.45h
Mr. Berik Ergaliev	Marketing Department of ACSP	Aktau Commercial Seaport, Aktau, Kazakhstan	25 May 2000, 11.00-11.30h
Mr. Talgat Abylgazin	Director of ACSP, Chairman of the Board of Kazmortransflot	Aktau Commercial Seaport, Aktau, Kazakhstan	25 May 2000, 11.30-12.30h
Mr. André Merrien	Task Manager, Traceca Project, BCEOM	Aktau Commercial Seaport, Aktau, Kazakhstan	25 May 2000, 13.30-14.00h
Capt. ??	Captain of the "Mercuri II", CSC	On Board of the Rail Ferry "Mercuri II"	25 May 2000, 14.30-15.00h
Mr. Bolat Jansugurov	Head of the Marketing Department, ACSP	Aktau Commercial Seaport, Aktau, Kazakhstan	25 May 2000, 15.30-17.00h
Mr. Michael Wilson	Advisor, Tacis CU Turkmenistan	Tacis Coordination Unit, Ashgabat, Turkmenistan	30 May 2000, 10.00-11.00h
Mr. Peter Verheijen	Project Manager CIS, Militzer & Muench International Transports	Hotel Grand Turkmen, Ashgabat, Turkmenistan	30 May 2000, 15.00-16.00h
Mr. Eric van Randwijck	Senior Transport Consultant, Haskoning	Port of Turkmenbashi, Turkmenbashi, Turkmenistan	01 June 2000, 13.00-14.00h
Mrs. Gulnara Sapardudyeva	Deputy Operational Planner, Haskoning		
Mr. Jan Dekkers	Senior Project Manager, GEM Consultants	Port of Turkmenbashi, Turkmenbashi, Turkmenistan	01 June 2000, 15.00-16.30h
Mr. Murad Atayev	Vice-President of Turkmen Maritime Lines		
Mr. Akhmed Tahirov	Head of the Commercial Department, TML		
Mrs. Enegul Haidarova	Assistant to the President of TML		

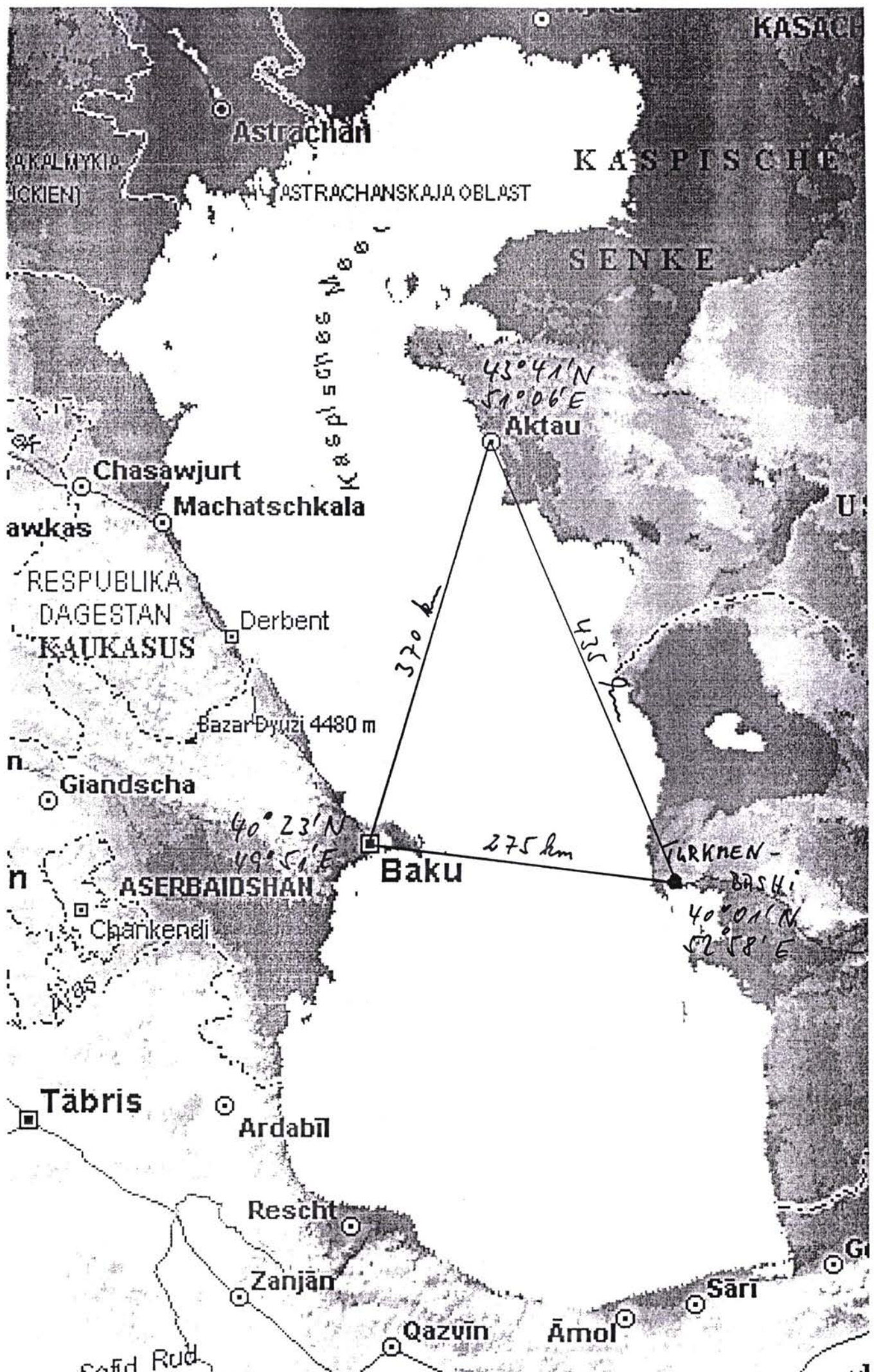
Annex 3: Revised Expert Schedule for Module B: New Caspian Sea Shipping Services

No	Position	PW	Year 2000												EU-Experts			
			2	3	4	5	6	7	8	9	10	11	12	EU (WD)	B/T/A (CD)	Total		
			8	12	16	20	25	29	34	39	43	48	52					
1	M. Sames, Task Manager, Transport Economist					■	■			■	■	■	■	■	.....	15	98	85
2	N. Bellstedt, Senior Shipping Expert				■	■	■			■	■	■	■			5	35	30
3	J. Schmidt, Maritime and Nautical Engineer				■	■	■			■	■	■	■			0	42	30
4	H. Wagner, Training Expert									.....	.....					5	7	10
5	Training Pool (W. Artt, K. Plate, H. Stuemmer)									■		■				0	35	25
6	EU Expert Pool								■			■				5	14	15
												30	231	195				
LEGEND: EU ■ Baku/Turkmenbashi/Aktau (B/T/A) Co-ordination Work Working Days												30	165	195				

Annex: 4

Nautical Approaches to the Ports in the Caspian Sea

Map of the Caspian Sea



1 General

The Caspian Sea level increased in the time from 1975 to 1995 approximately 2,5 m. Since 1995 the water level started to sink again by now 4 cm. During summertime the water is always less high. The reason for this is the higher volatilisation and that the rivers supply less water.

The Caspian Sea has buoyage region A.

The tide level in the three ports visited is 0 m. The amplitude of the highest waves is up to 2,5 m.

2 Port of Baku – Nautical Conditions

The port of Baku, Azerbaijan, is located in the south of the Apsheron peninsula at location 40°23' N, 49°51'E at the Western shore of the Caspian Sea

Baku is the biggest port in the Caspian Sea. Baku is an International Seaport and the gateway for the Azerbaijan trade with links to Georgia, Ukraine, Russia, Kazakhstan, Central Asia and the Iran. Via the Volga-Don-Canal Baku is connected with the rest of the world. The size, dimension and type of the ships in the Caspian Sea are determined by the Volga-Don Canal system. The navigational approach is difficult. Some islands, and a lot of oilfields with their offshore installations, like platforms and moorings, submarine pipelines and underwater installations have to be passed.

The government is the owner of all port facilities.

The different harbour locations are spread along the seashore in the Baku bay. There are the Main Harbour locations with the Ferry and Container Terminal and the Fishery Port, the Timber Terminal, the Oil Terminal with the refineries and 2 important shipyards and different places for maintenance.

Port operations take place at day and night time on a round-the-clock basis including Holidays.

The 50 nm long approach to the Baku Port area is divided into a traffic separation scheme with four roundabouts. The navigation in this area is difficult. The courses must be changed five times. In one of the roundabouts there are rocks and the buoys are in a very poor and bad condition. Approximately 30 % of them are not flashing. The lights are broken down, radar reflectors are not available or not working, the numbers are not readable and the colour not to recognise.

The width of the established traffic separation scheme is seven cable and the middle separation line has a width of 2 cable. Additionally to the navigation buoys some radar bearing objects are available, but only sandy shore at the small peninsula where it is difficult to measure distance, a breakwater at an island and some offshore installations.

It is not necessary to dredge in these areas.

After passing the island Nargin in the port entrance of the bay, there is also a traffic separation scheme without any marks and additionally, nearby there is a parallelly running lateral marked navigation channel. This channel is dredged up to a depth of between 8,5m and a little more than 10 m. This channel leads with two junctions to the ferry station, container terminal and two an other port areas, which at present out of order.

In front of the ferry / container terminal there is a space with a diameter of three cable to allow the vessels to turn. In front of this area a large anchorage area is located. Additionally, there are two large anchorage areas in the east side of the bay.

A dredged channel also leads to the timber terminal.

The depth in the bay is between 5 and 8 m.

The buoys and the leading lights in the bay area are in a very poor condition, too. Some of them are out of order. Due to corrosion the green or red buoys are looking alike. The numbers of the buoys in many cases are not readable. It could not exactly be determined by the Consultant, if the buoys are anchored properly. But the solar batteries of a lot of the lights are broken down or not working. Further, a lot of the radar reflectors are not working. 30 % to 40 % of the lights are not flashing.

It must be marked that in the approach and in the bay no buoy is equipped with racon.

The Deputy Harbour Master stated, that DGPS equipment is not available.

A lighthouse is located at the south-west part of the bay. It appears to be in good order and condition.

The Port Control Centre is also the Search and Rescue Centre. In this station two operators are always on duty. The staff only has a low education. Azerbaijan is in contrast to Kazakhstan GMDSS area A3, that means, they must have GMDSS VHF, medium wave and Inmarsat equipment. In reality they have nothing of this, though.

The operators have to give order, advice and assistance to the vessels in the port, in the bay and on the road. But a radar observation is not possible, because all the radar equipment is broken down and not useable. The station is located in the first floor in the container port area, and has a very limited view over the port and bay area. The operators have to their disposition an old VHF equipment, medium wave equipment and a distress receiver 2182 kHz, Morse key and a telephone. There is no GMDSS decoder, not even binoculars.

Arrival and departure operations take place around the clock. Pilots are available. The old pilot boat without Radar equipment, is in a very poor condition and not in the shipping register any more. It can be assumed that it lost its class a long time ago.

The tug boats are also in a very bad and poor condition and also without Radar equipment. One of the old tugboats is equipped with a fire fighting system for water and foam and with a monitor. The tug boats are not listed in the Shipping Register, either. It can be assumed that they also lost their class long time ago.

One small boat for garbage, oily water and sewage is available in Baku. This auxiliary vessel has a very poor and low standard. During Soviet time 5 such boats were available. Now there are only two, one in Dubendi and one in Baku, both without class.

Bunker boats and special boats for fire fighting are not available.

Chemicals for the fight against oil pollution are not available. For fighting oil pollution in the shore area, only sand is available. There are no special oil filters installed. Consequently, the oil will flow directly into the drainage and then into the harbour water.

3 Oil Terminal Dubendi – Nautical Conditions

3.1 General

Until the seventies, the oil terminal facilities of the port of Baku were handling incoming and outgoing oil. The refineries had a capacity of up to 25 million tons per year. However, to cope with the increasing flows during Soviet time, in the seventies it was decided to built an additional oil terminal on the Apsheron Peninsula.

Dubendi, in former times Apsheron, is a part of port of Baku. This new port Dubendi is well protected by nature by a near-by island. Dubendi is situated in the east of Baku, near Artem Island, at a distance of 46 km from Baku and of 92 nm off by sea. Port Dubendi was built in 1970. Owner of Dubendi port is the state-owned Port of Baku.

In the administration building police, dispatcher, port control and administration are accommodated.

3.2 Channel

The navigable channel to the port has a length of 2,6 nm and a width of a little more than 0.8 cable length. The channel is dredged up to 8 m draught. Nine lateral marks with top-marks and lights indicate the sides of the channel (buoy region A). These 9 buoys are in very bad condition, but at present all are working. The two shore based direction lights (leading lights) are also in very bad condition and at present out of order, because there is no money for spare parts. The approach is facilitated only by some good radar response of the coasts of Artem and Apsheron. But for such navigation a good radar equipment and a well trained navigator are needed.

3.3 Port control

The port control is located in the first floor in the administration building with a restricted view over the port and the approach channel. Discharge operations in the port the are ongoing day and night. One officer is always on duty, altogether there are five low qualified officers are in charge.

The equipment of port control is old and in any case really poor.

There are no radar units for nautical observation and advice. The port has no GMDSS VHF decoder and no binoculars, only one old walky talky, a telephone and a wrist watch with out strap are available.

Today Dubendi Port is not able to meet navigational requirements of maritime safety shipping and might be a reason for ship casualties.

3.4 Harbour

The depths of the port is dredged between 8 and 9 m.

A space with a diameter of 2 cable length allows the vessels to turn.

Entering the harbour during the darkness is allowed, but very difficult. Pilots are not available. In case the wind speed is more than 17 m/s, every sailing operation will be stopped without any exception. There is an average of 30 days without sailing operation each year, amounting to 8.3 %.

In view of the occasionally dangerous ground swell the port authorities do not give any restrictions, because two tugboats are available. One was built 1974, 1200 hp and monitors for fire fighting, the other was built 1960, 600 hp and had a total overhaul in 1998.

The port has 5 piers amounting to 8 places for oil operations. There is an additional berthing area for supply vessels, like tugboats, bunker boat and environment vessel.

Three of the piers, N° 1, 2 and 5 are for crude oil, number 3 is determined for petrol, kerosene, diesel etc. Berth number 4 is determined for bunkering. Berth number 4 is for oil discharging operations presently not useable, because the pumping system and the pipes are broken.

For bunkering (berth 4) there is one tank unit for 2,800 tons, one unit for 800 tons diesel and 2 units, each with a capacity of 100 tons, for lubricating oil.

Pier number 3 is temporarily not useable either, because it is broken down and out of order. At pier number 3 there are 38 tank units, each with a capacity of 5,000 tons, amounting to a total of 190,000 tons.

Owner of the tank farm is a government oil company.

Piers number 1, 2 and 5 are limited for vessels with a maximum draught of 6.25 m. The big tankers, with a cargo capacity of 11,525 t and with a maximum draught of 11.20 m, are only loaded up to 8,000 tons. Whether pier 2 and 5 are in working condition could not be found out. Both of these piers are in a very bad condition. It can be assumed that they are also broken down and out of order.

In the terminal 32 workers are working, 5 employees for port control and 2 for administration, a total of 39 people.

In one month they are now discharging between 220,000 and 250,000 tons. When working at full capacity, pier N° 1 is able to receive up to 100 vessels each month with a discharging capacity of approximately 800,000 t.

In Dubendi only discharge of oil takes place.

All vessels now have Azerbaidjan flag. During Soviet time a lot of Russian ships called Dubendi.

Usual operation are between Aktau and Dubendi with Tengiz crude oil from the Tengiz field in Kazakhstan. In the last three month only two ships came from Turkmenistan. Tengiz crude oil has a good quality, with only small share of paraffin, meaning that there are no flakes and heating is not necessary.

For discharging of 8,000 tons 8 to 10 hours are needed. Each month 40 up to 50 tankers are discharged.

The whole area is in a very bad condition.

The insulation of the pipes and tanks are old, partly off and without any maintenance. The pier conditions are also bad. Some piles have a lot of cracks. The fender system is completely corroded and without maintenance. Valves are heavy to turn and without grease. Fire fighting system valves cannot be turned, seals are broken or off, there is no hose and nozzles available and no pressure on the pipes.

The steel construction between the concrete parts of the jetty are rusty, damaged and without maintenance. The electrical equipment is also partly broken, dangerous and without maintenance.

The staff is not motivated. The reasons are insufficient tools, a low salary and a dangerous working area. In addition, they are afraid to loose the job and show no understanding concerning corruption.

3.5 Auxiliary services

Bunker boat “Susha”, with 4,643 tdw and a cargo capacity of 4,420 t, length 123 , built in 1966, gets all necessary products for bunkering operations in Dubendi at the oil refinery in the Baku Bay.

Vessel “Delphin” picks up garbage, sewage and oily water. These products she delivers to special tank lorries and trucks. The oily water will be separated. The oil will be process for new oil products.

In the tank farm there are 6 units, each 20,000 tons, and 8 units, each 5,000 tons, in total 160,000 tons for crude oil.

For fire fighting and oil pollution there is a special team at the tank farm. The equipment is working with water and foam. To fight oil pollution, an oil boom, buckets and rags can be used, chemicals are not available.

In Dubendi there are no workshops and no maintenance facilities. The floating crane with capacity of 25 tons is only available for repairing the breakwater and the fenders.

4 Port of Turkmenbashi – Nautical Conditions

The port of Turkmenbashi in Turkmenistan is situated at the eastern shore of the Caspian Sea, just opposite of Baku, at location 40°01' N, 52°58'E. From the port of Baku to the approach buoy of Turkmenbashi Bay the distance is approximately 150 nm.

Behind the approach buoy ships have to pass between a peninsula and an island. Before this entrance on the left and the right hand side there are 5 old wracks of small vessels. After passing the approach vessels have to sail 8.4 nm on a course of 32.8 degrees. Between the lateral marks 17 and 19 they have to alter the course to 339.4 degrees. The last buoy, No. 32, is 3,2 nm off from buoy 19. To enter the Oil Terminal in Turkmenbashi the course has to be altered at buoy 28 and steered 58.2 degrees. The distance from buoy 28 to the oil jetties is a little less 3 nm. The distance between buoy 19 and buoy 28 is 1.5 nm.

This approach and the channels are dredged up to 7 m depth and have a width of 1 cable only. In the alter course areas and the junctions' area the navigable channel is dredged up to a width of 2 cables. In these areas two ships can pass each other without any problems. The depth of the bay in the dredged area is 2 up to 3.5 m only.

The dredged width of the channel is limited to 0.75 cable length and the depth of the cannel is 7 m. In front of the berthing places there are areas with a diameter of 2 cables to allow the vessels to turn. The draught in the berthing areas are less than 7 m. The draught of the vessel is limited to 5 m.

The Caspian Shipping Company has 5 types of tankers. Consequently, the two biggest types can not load to their full capacity.

Type No.	Cargo Capacity in tons	Draught in meters
1	11,525	8.00
2	6772.3	5.3
3	5,138	4.5
4	4,600	4.15
5	4.420	4,23

At present there are no dredging activities, because due to the high level of the water it is not necessary. The last dredging was approximately 1990 and the dredger came from Baku.

The lighted beacon and the leading lights are in very bad condition. Some of them are out of order.

The buoys are also in a very bad condition. They are anchored well, but a lot of the lamps and the solar batteries are broken down. Furthermore, a lot of the topmarks and the radar reflectors are not working. The harbour Master stated, that 20 to 25 % of the lights never flash and 25 % of the radar reflectors are extinguished. Through the corrosion the green or red buoys are look alike. Also, the numbers of the buoys are partly not readable.

The buoys and direction lights are under the responsibility of the Harbour Master. The maintenance is carried out by the shipyard.

A pilot system does not exist.

The government is owner of the fleet and of all the port facilities. Discharge and loading operations take place day and night.

The port authorities, including the harbour master, amount to 10 persons.

The Port Control Centre is also the Search and Rescue Centre. On this station always two operators are in duty. Altogether there are 6 operators. This staff only has low education, only the Harbour Master has a high nautical education.

The operators have to give order, advice and assistance to the vessels in the port and on the road. But a Radar observation is not possible, because the control centre does not have any Radar equipment. The station is located in the first floor of an old building near the port, and has a limited view over the port and bay area. The operators are only in charge of an old VHF equipment and a telephone, but there are no GMDSS VHF decoders and no binoculars. Two of the operators were trained in St. Petersburg for INMARSAT, but they have no equipment.

Arrival and departure during the darkness is allowed, although there are no pilots available.

According to the Port Regulation order no ship operation in the port and on the channel is permitted, when the wind speed is more than 17 m/s (7 Beaufort), without any exceptions.

Approximately 20 to 25 % each year, that is between 75 and 90 days, no operations take place. The problems here are not the dry cargo vessels or the tankers. Problematic are the ferries with their draught of only 4 to 4.5 m, their freeboard of more than 3.2 m, their high upper constructions and a length of up to 155m. In times of cross wind the ferries tend to sail like a bubble, when they are travelling with low speed. In order to be able to steer the vessel a minimum speed in the navigable channel of 10 knots is required. On the other hand, with a speed of more than 4 knots bow thrusters cannot render assistance.

Each month approximately 50 tankers and 10 to 12 dry cargo vessels call the port during summer season. In the winter season only 4 dry cargo vessels, and 30 ferries from Russia and Azerbaijan call the port.

In the port, two tug boats, one with 800 hp and one with 1200 hp, are available. For the tug assistance the vessels have to pay 400 USD basic rate, and additionally for each hour 50 USD.

There are also two small boats for shifting operation available, one with 150 hp and one with 350 hp.

A small garbage boat and one boat for oily water and sewage are also available. All these auxiliary vessels have a very low standard and are presumably without class.

Bunker boats and boats for fire fighting are not available.

In the in Port and Ferry terminal area trashcans and garbage container are not available.

There is no equipment to fight oil pollution in the port.

5 Port of Aktau – Nautical Conditions

Aktau Port is situated in Kazakhstan, at the north-eastern shore of the Caspian Sea, at location 43°41' N, 51°06'E. From the port of Baku the distance to the approach buoy of Aktau is approximately 235 nm.

The Aktau Sea Commercial Port is the only international seaport of the Republic of Kazakhstan with links to Russia, Turkmenistan, Iran, and Azerbaijan. The port is located on the Mangyshlak peninsula. The port was founded 1963 and is until now under re-construction.

Port operations take place day and night on a round-the-clock basis including holidays.

The predominant wind in this area is north-westerly and can reach 30 m/s (11 Beaufort).

Outside the approach channel there are two anchorage areas. One is dedicated to tankers, 4 nm off from Aktau, and the other to dry-cargo and fishing vessels, 2.5 nm off from Aktau.

The access channel is dredged up to approximately 8 m and allows a maximum draught of 6.25 m and an under-keel clearance of 1.5 m, which is necessary due to insurance requirements. The width of this channel is 0.7 cable. In the alter course area the navigable channel is dredged up to a width of 1.4 cables. The depth of the bay in the dredged area is 4 to 7 m.

The approach buoy is 1.5 nm away from the dredged navigation channel. After passing the approach buoy vessels have to sail 1.8 nm on a course of 101.6 degrees. To enter the port they have to alter the course to 156 degrees.

The width in the port entrance between the breakwater and the old oil pier is 1.2 cables. In front of the berthing places there is area with a diameter of 2.2 cables to allow the vessels to turn.

The buoys at the access channel are painted properly and fitted with topmarks, lights, sun collectors and radar reflectors. It is to be remarked that the buoys are not numbered. All these lateral marks are anchored well. Everything is in a very good order and condition.

The beacons in the port entrance, located at the old oil terminal and the breakwater, are in bad order and condition, but flashing at night-time.

The buoyage maintenance is under the control and responsibility of the Harbour Master. The maintenance is carried out by the port workshop.

A light house is located on the roof of an apartment building in the living area at the seaside of Aktau. It appears to be well and in good order and condition.

At present there are dredging operations, because 30 % of the port area has presently not the required depth of up to 8 m.

The Deputy Harbour Master stated, that people from Turkey installed DGPS equipment. But until now it is not working well and they have a lot of claims.

The Port Control Centre also serves as the Search and Rescue Centre. On this station there are always two operators on duty. The staff has only a low education. The operators have to give order, advice and assistance to the vessels in the port and on the road. But a Radar observation is not possible, because they do not have any Radar equipment. The station is located in the first floor of the new administration building in the port area, and has a limited view over the port and bay area. The operators are in charge of an old VHF equipment, medium wave equipment and a distress receiver 2182 kHz, Morse key and a telephone. There is no GMDSS VHF decoder and no binoculars. The Head of Communication and Navigation Department stated, that the port will receive and install the GMDSS equipment for the necessary A 2 Region in the next time. This equipment has already arrived in the port.

Arrival and departure during the darkness is allowed. Pilots are not available, but towage is compulsory. The draught in the berthing areas is less than 6.3 m. One tug boat "HOVSAN-5", built in 1987, with two engines, each 840 hp, is available. The equipment is old but working.

Two small boats for garbage, oily water and sewage are also available. All these auxiliary vessels have a very low standard and are presumably without class.

Bunker boats and special boats for fire fighting are not available.

For fire fighting water and foam (30 m³ German chemicals) is available. The garbage, sewage and oily water boat "Raduga" is equipped with a monitor for water and foam. For oil pollution there are oil booms; chemicals are not available. For oil pollution in the shore area only sand is available. There are no special oil filters installed, the oil will proceed directly into the drainage and then into the harbour water.

The bridge with the pipeline to oil berths 9 and 10 is only partly protected by a breakwater. This breakwater should be 2 m higher. During strong wind periods the waves will enter the port with nearly full power. This is a danger for the vessel operation in the port.

The oil pier at the breakwater is presently not in use.

Port of Baku

- Photos
- Port Layout



View from berth No. 9 to harbour and coast control. Water tank for fire fighting system



Radar control centre of harbour and coast area.



Radio room from Radar control centre of harbour and coast area, only VHF, no GMDSS



Antenna for three and 10 cm Radar from Radar control centre of harbour and coast area



View from Radar control centre over the harbour and coast area to floating workshop



View to Radar control centre of harbour and coast area with water tanks for fire fighting system and port supply.



Vessel for collecting oily water and garbage



Pilot vessel for port and bay, without radar equipment



Pilot vessel for port and bay, with out radar equipment



Tugboat / Supply vessel and buoy



Supply vessel with fire fighting equipment



View to island Baku approach

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Завод

Строитель

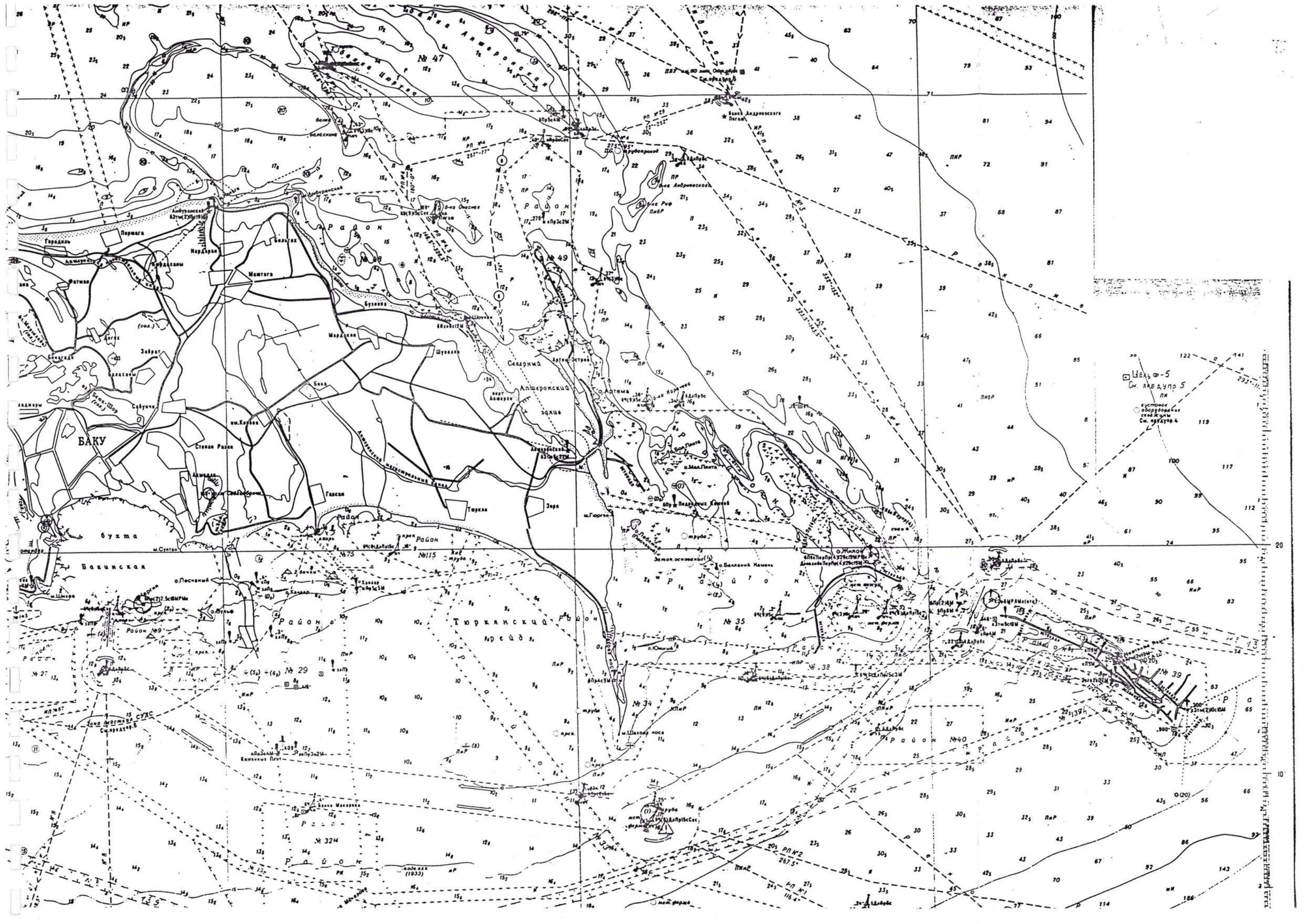
Астроном

Пира №28 (по старой)

Территория

рис. 4.2
Fig 4.2

Даромная территория



Dubendi Oil Terminal

- Photos -



Plate of oil terminal Apsheron office



View from Administration Building to water reservoir and road to pier 1,2,5



View from Administration Building to pier 1,2,5 and tanks pier 1,2,5 and tanks



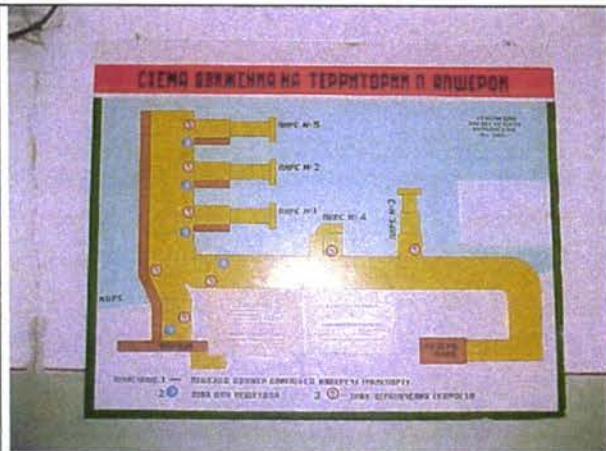
View from Administration Building to pier 4 and 3, floating crane with a capacity 25 t and tank area



View from Administration Building to pier 3 and berth 4



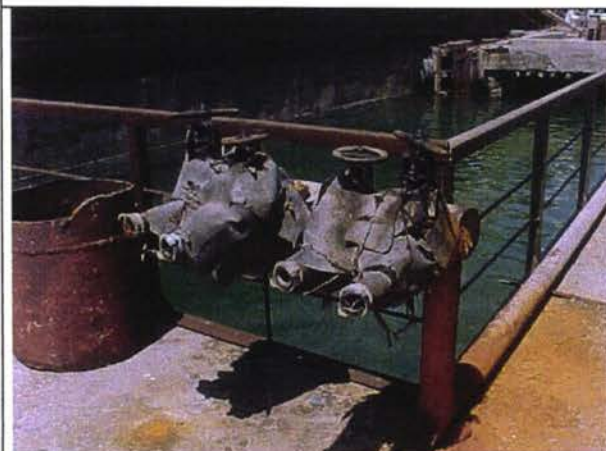
View from Administration Building to oil tank, low maintenance



Layout of terminal



Valve system for pipe lines



Fire fighting system on pier 1, no water supply, seals partly broken or off, valves can only be turned with a lot of effort, hoses and nozzles not available



Pipeline from shore side to pier 1, 2 and 5 for fire fighting

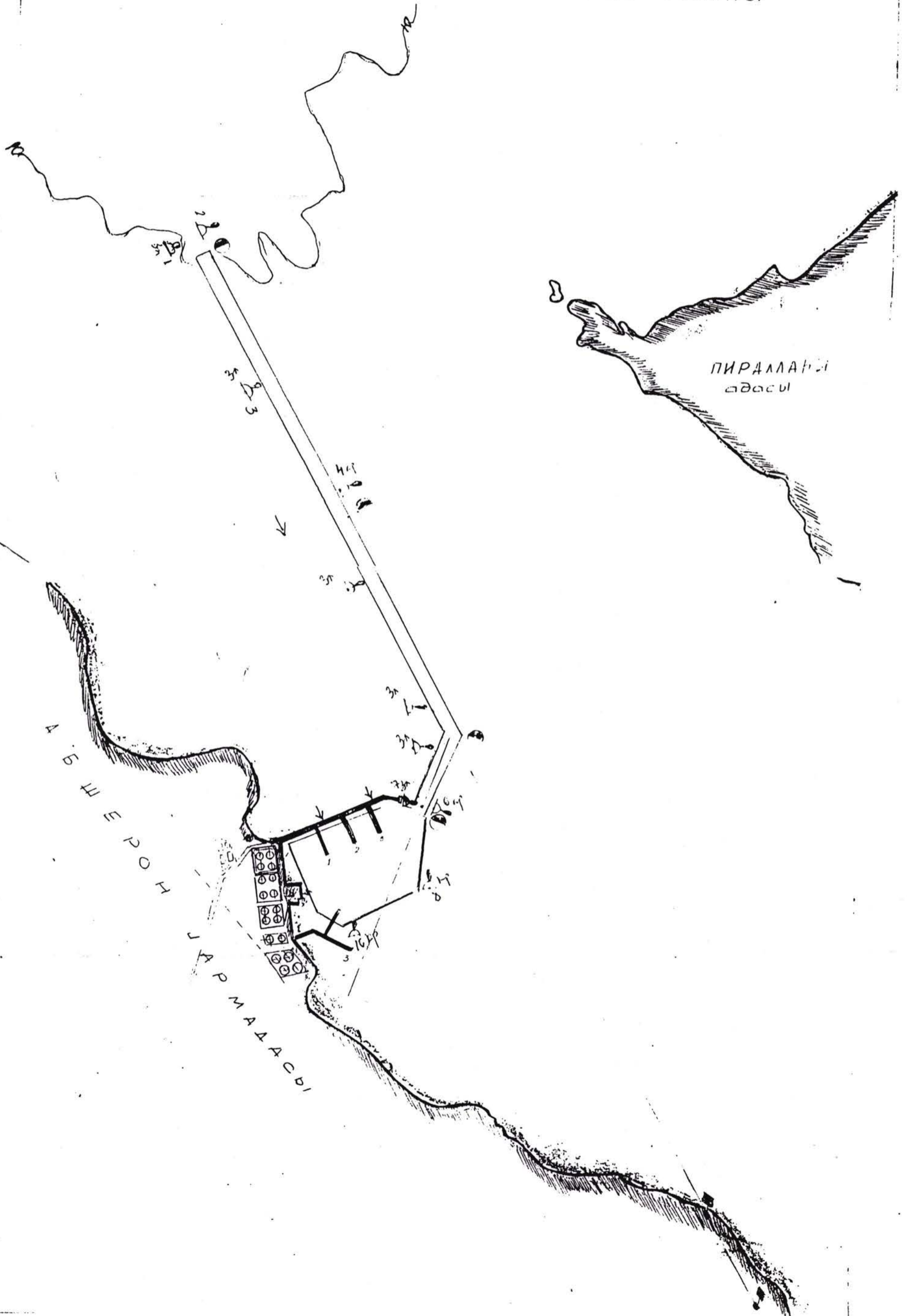


Pipeline and fire fighting system on pier 1, no water supply, seals partly broken or off, valves can be turned



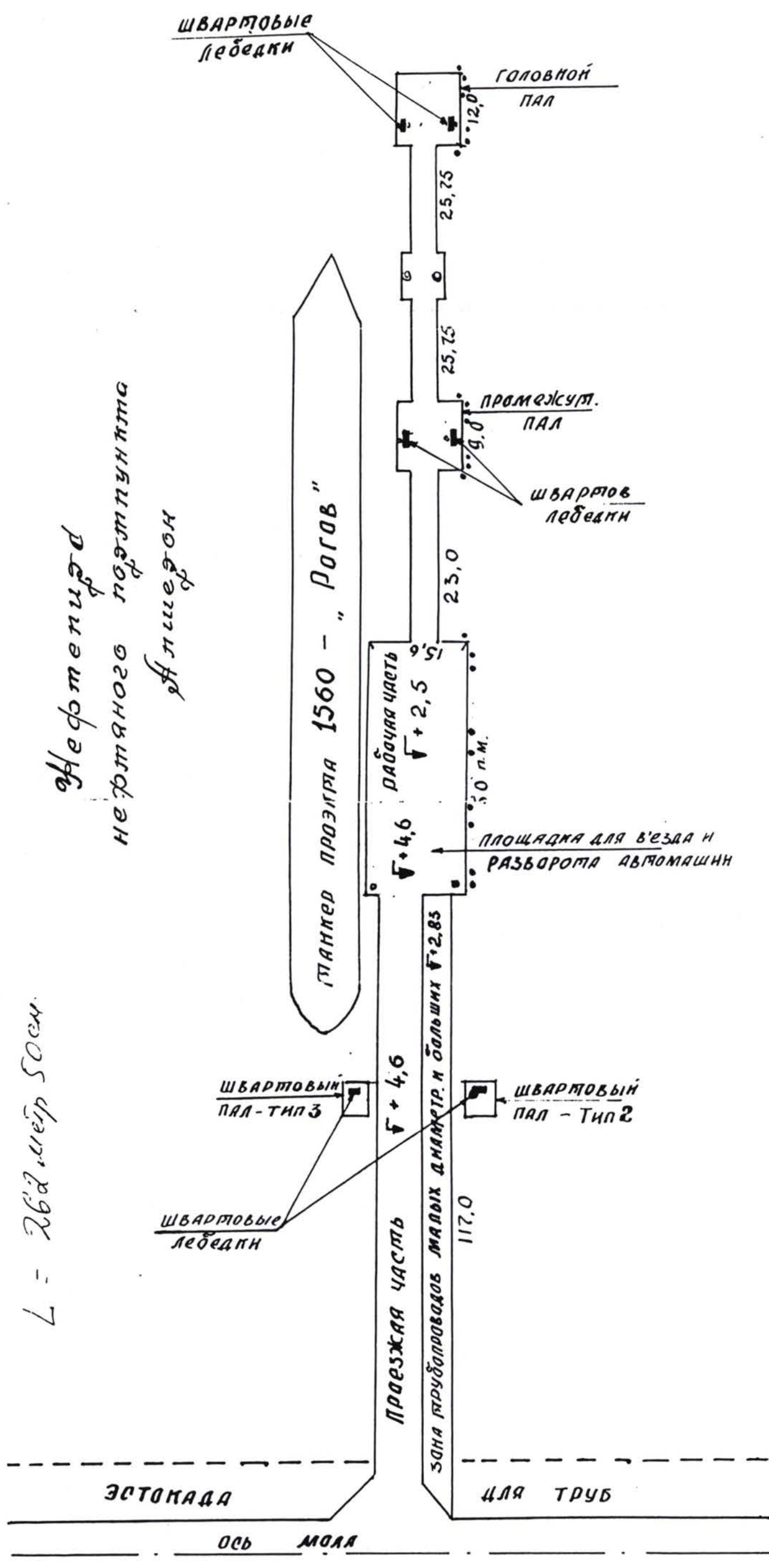
Pipeline from pier 1, 2 and 5 to shore side with electrical cable

ДУБАНДИ НЕФТАШЫРМА БАЗАСЫ,
ЖИРИШ КАНАЛЫ ҒА АБШЕРОН ЛИМАНЫ

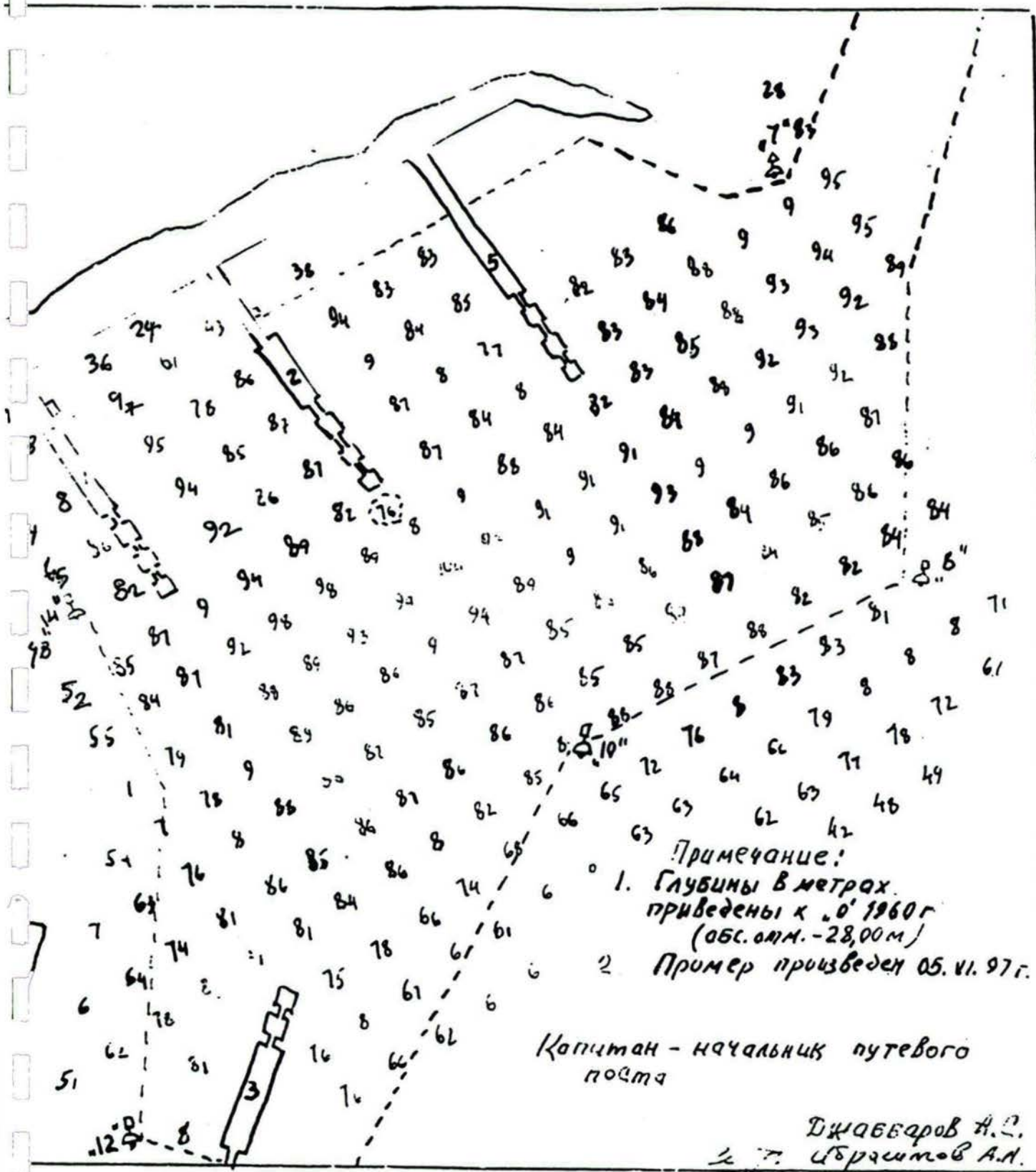


L = 262 мёр 50 см.

Нефтенный
нефтяного портпункта
Алишерон



Ковш порта АПШЕРОНСКИЙ



М 1:5000

Куз Г.Н.

Annex

Crude Oil Turnover Dubendi March / April 2000

Crude oil Turnover in Apsheron (Dubendi) Azerbaijan for March 2000

No	Name of vessels	Date	Nomination	Quantity	Cargo origin	Transit	Cabotage	Port of departure	Number of Pier	Owner of cargo
1	Bunkirov-4	01.03.00	Diesel	2398			2398		I	ARNK
2	Naftalan	02.03.00	Oil	4921	Turkm	4921		Alacha	I	Casptrans
3	G. Mamedov	03.03.00	Oil	7932	Tengiz	7932		Aktau	I	Casptrans
4	G. Aslanov	04.03.00	Oil	8000	Tengiz	8000		Aktau	I	Casptrans
5	Shamkhor	05.03.00	Oil	7896	Tengiz	7896		Aktau	I	Casptrans
6	Apsheron	07.03.00	Oil	6133	Tengiz	6133		Aktau	I	Casptrans
7	G. Mamedov	07.03.00	Oil	7945	Tengiz	7945		Aktau	I	Casptrans
8	Mekhmandarov	09.03.00	Oil	4861	Turkm	4861		Alacha	I	Casptrans
9	K. Huseinov	09.03.00	Diesel	4636			4636	Baku	III	Azeroil
10	G. Aslanov	09.03.00	Oil	7896	Tengiz	7896		Aktau	I	Casptrans
11	Lenkoran	10.03.00	Oil	6096	Tengiz	6096		Aktau	I	Casptrans
12	Shamkhor	10.03.00	Oil	7917	Tengiz	7917		Aktau	I	Casptrans
13	Guseinov	10.03.00	Diesel	3274			3274	Absheron	III	Azeroil
14	S. Vurgun	13.03.00	Oil	4826	Turkm	4826		Alacha	I	Azeroil
15	G. Mamedov	15.03.00	Oil	7937	Tengiz	7937		Aktau	I	Casptrans
16	A.Bairamov	15.03.00	Oil	6162	Tengiz	6162		Aktau	I	Casptrans
17	G. Aslanov	16.03.00	Oil	7865	Tengiz	7865		Aktau	I	Casptrans
18	M.Azizbekov	16.03.00	Oil	6617	Turkm	6617		Okarem	I	Casptrans
19	Lenkoran	19.03.00	Oil	6101	Tengiz	6101		Aktau	I	Casptrans
20	Astara	19.03.00	Oil	6232	Tengiz	6232		Aktau	I	Casptrans
21	Araz	20.03.00	Oil	6678	Buzach	6678		Aktau	I	Casptrans
22	G. Mamedov	20.03.00	Oil	7942	Tengiz	7942		Aktau	I	Casptrans

No	Name of vessels	Date	Nomination	Quantity	Cargo origin	Transit	Cabotage	Port of departure	Number of Pier	Owner of cargo
23	G. Aslanov	21.03.00	Oil	7916	Tengiz	7916		Aktau	1	Casptrans
24	Khazar	20.03.00	Oil	6579	Buzach	6579		Aktau	1	Casptrans
25	Apsheron	22.03.00	Oil	6134	Tengiz	6134		Aktau	1	Casptrans
26	Lenkoran	22.03.00	Oil	6083	Tengiz	6083		Aktau	1	Casptrans
27	M.Azizbekov	23.03.00	Oil	6182	Tengiz	6182		Aktau	1	Casptrans
28	G. Mamedov	24.03.00	Oil	7880	Tengiz	7880		Aktau	1	Casptrans
29	Ganja	24.03.00	Oil	6169	Tengiz	6169		Aktau	1	Casptrans
30	Araz	25.03.00	Oil	6561	Buzach	6561		Aktau	1	Casptrans
31	G. Aslanov	25.03.00	Oil	7894	Tengiz	7894		Aktau	1	Casptrans
32	Mekhmandarov	26.03.00	Oil	4861	Turkm	4861		Alacha	1	Casptrans
33	A.Bairamov	26.03.00	Oil	6157	Tengiz	6157		Aktau	1	Casptrans
34	Apsheron	28.03.00	Oil	6846	Buzach	6846		Aktau	1	Casptrans
35	Lenkoran	28.03.00	Oil	6130	Tengiz	6130		Aktau	1	Casptrans
36	G. Mamedov	29.03.00	Oil	7924	Tengiz	7924		Aktau	1	Casptrans
37	G. Aslanov	30.03.00	Oil	7912	Tengiz	7912		Aktau	1	Casptrans
	Total			241493		231185	10308			

Crude oil Turnover in Apsheron (Dubendi) Azerbaijan for April 2000

No	Name of vessels	Date	Nomination	Quantity	Cargo origin	Transit	Cabotage	Port of departure	Number of Pier	Owner of cargo
1	Astara	01.04.00	Oil	5995	Tengiz	5995		Aktau	I	Casptrans
2	G. Mamedov	02.04.00	Oil	7794	Tengiz	7794		Aktau	I	Casptrans
3	G. Aslanov	04.04.00	Oil	7808	Tengiz	7808		Aktau	I	Casptrans
4	Khazar	04.04.00	Oil	6088	Tengiz	6088		Aktau	I	Casptrans
5	Ganja	05.04.00	Oil	6018	Tengiz	6018		Aktau	I	Casptrans
6	S. Vurgun	06.04.00	Oil	4891	Turkm	4891		Alacha	I	Casptrans
7	G. Mamedov	07.04.00	Oil	7796	Tengiz	7796		Aktau	I	Casptrans
8	Naftalan	07.04.00	Oil	4680	Turkm	4680		Okarem	I	Casptrans
9	Gobustan	08.04.00	Oil	4670	Turkm	4670		Okarem	I	Casptrans
10	G. Aslanov	08.04.00	Oil	7790	Tengiz	7790		Aktau	I	Casptrans
11	G. Guseinov	08.04.00	Diesel	4516			4516	Baku	III	Azeroil
12	Araz	09.04.0	Oil	6088	Tengiz	6088		Aktau	I	Casptrans
13	M. Azizbekov	09.04.00	Oil	6483	Turkm	6483		Okarem	I	Casptrans
14	A.Bairamov	10.04.00	Oil	6081	Tengiz	6081		Aktau	I	Casptrans
15	G. Mamedov	11.04.00	Oil	7862	Tengiz	7862		Aktau	I	Casptrans
16	Lenkoran	12.04.00	Oil	6495	Turkm	6495		Okarem	I	Casptrans
17	G.Geidarov	14.04.00	Oil	4725	Turkm	4725		Alacha	I	Casptrans
18	G.Aslanov	14.04.00	Oil	7995	Tengiz	7995		Aktau	I	Casptrans
19	Astara	14.04.00	Oil	6199	Tengiz	6199		Aktau	I	Casptrans
20	Apsheron	15.04.00	Oil	6563	Turkm	6563		Okarem	I	Casptrans
21	Khazar	15.04.00	Oil	6058	Tengiz	6058		Aktau	I	Casptrans
22	G.Salimov	16.04.00	Oil	4544	Turkm	4544		Okarem	I	Casptrans
23	G. Mamedov	16.04.00	Oil	7902	Tengiz	7902		Aktau	I	Casptrans
24	Ganja	16.04.00	Oil	6626	Turkm	6626		Okarem	I	Casptrans

No	Name of vessels	Date	Nomination	Quantity	Cargo origin	Transit	Cabotage	Port of departure	Number of Pier	Owner of cargo
25	G. Aslanov	18.04.00	Oil	7882	Tengiz	7788		Aktau	1	Casptrans
26	M. Azizbekov	19.04.00	Oil	6606	Turkm	6606		Okarem	1	Casptrans
27	Lenkoran	19.04.00	Oil	6089	Tengiz	6089		Aktau	1	Casptrans
28	G. Mamedov	20.04.00	Oil	7943	Tengiz	7943		Aktau	1	Casptrans
29	Khazar	21.04.00	Oil	6031	Tengiz	6031		Aktau	1	Casptrans
30	G. Aslanov	21.04.00	Oil	7909	Tengiz	7909		Aktau	1	Casptrans
31	A.Bairamov	22.04.00	Oil	6152	Tengiz	6152		Aktau	1	Casptrans
32	Ganja	23.04.00	Oil	6643	Turkm	6643		Okarem	1	Casptrans
33	Apsheron	24.04.00	Oil	6024	Tengiz	6024		Aktau	1	Casptrans
34	G. Mamedov	25.04.00	Oil	7935	Tengiz	7935		Aktau	1	Casptrans
35	G. Aslanov	26.04.00	Oil	7856	Tengiz	7856		Aktau	1	Casptrans
36	M. Azizbekov	27.04.00	Oil	6460	Turkm	6460		Okarem	1	Casptrans
37	Khazar	28.04.00	Oil	6090	Tengiz	6090		Aktau	1	Casptrans
38	Ganja	28.04.00	Oil	6586	Turkm	6586		Okarem	1	Casptrans
39	A.Bakikhanov	28.04.00	Oil	4783	Turkm	4783		Alacha	1	Casptrans
40	A.Bairamov	29.04.00	Oil	6189	Tengiz	6189		Aktau	1	Casptrans
41	Lenkoran	30.04.00	Oil	6048	Tengiz	6048		Aktau	1	Casptrans
	Total			265056		260540				

Port of Turkmenbashi

- Photos -



Wreck in approach to Turkmenbashi channel



Wreck in approach to Turkmenbashi channel



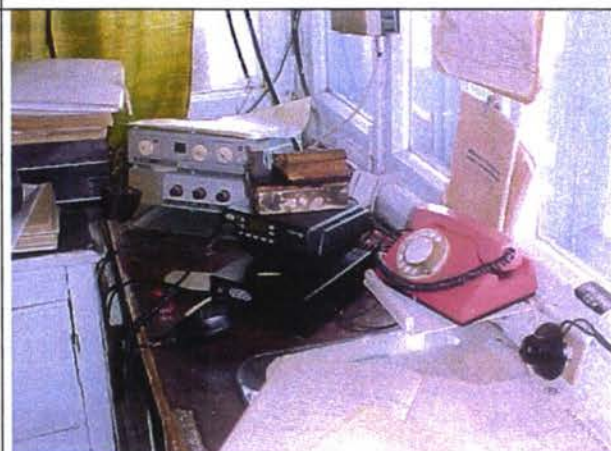
Approach to Turkmenbashi channel



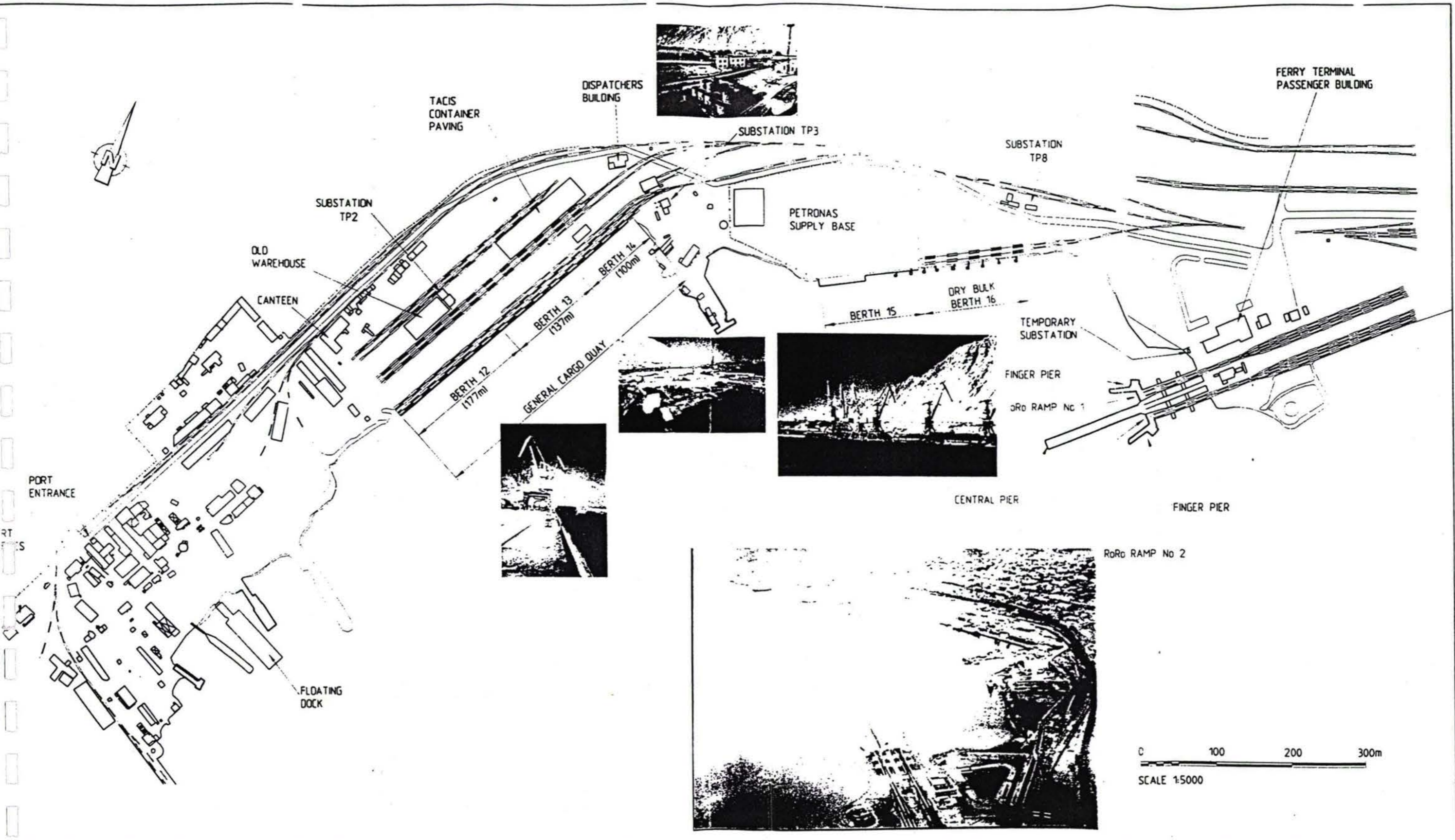
Buoy without radar reflector, colour must be green or black - not recognizable



Buoy without radar reflector, colour must be red -not recognizable



Port Head Office equipment



TURKMENBASHI PORT DEVELOPMENT PROJECT
CONSULTANCY SERVICES FOR MANAGEMENT SUPPORT

TURKMENBASHI PORT

HASKONING
Consulting Engineers
and Architects



European Bank
for Reconstruction and Development



Port of Aktau

- Photos
- Layout
- Location



Tugboat "HOVSAV-5" assisting ferry Mercuri 2



Pipeline to oil terminal with out breakwater in the south



Monitor for water and foam on the garbage, sewage and oily water boat "Raduga"



Port side port entrance, old oil terminal



Fair way buoy with radar reflector, sun collector and light



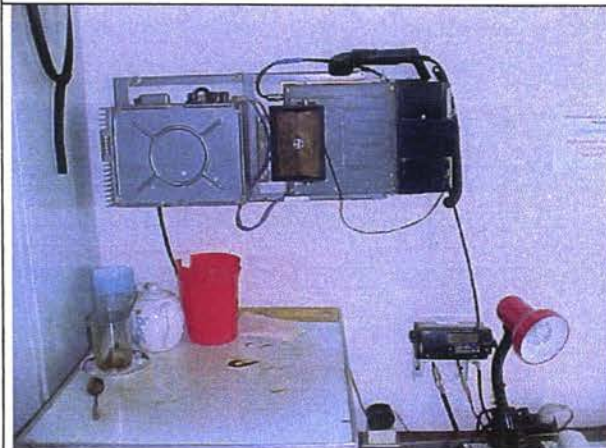
Starboard side port entrance, end of breakwater



Breakwater , west side



Starboard buoy with radar reflector, sun collector and light



Port Control Centre with wireless equipment



Operator in the Port Control Centre with Morse key and wireless equipment



Lighthouse in Aktau



Aktau Beach

ACCESS RAILWAYS ACCESS ROAD



- ① ADMINISTRATIVE BUILDING
- ② PASSENGER TERMINAL
- ③ BORDER POLICE
- ④ CUSTOMS

SECONDARY BREAKWATER
OIL BERTH 4

OIL BERTH 5

DAGESTAN FERRY
(BERTH 8)

BERTH 6

BERTH 1

BERTH 2

BERTH 3

OIL BERTHS 9 AND 10

DRY CARGO TERMINAL

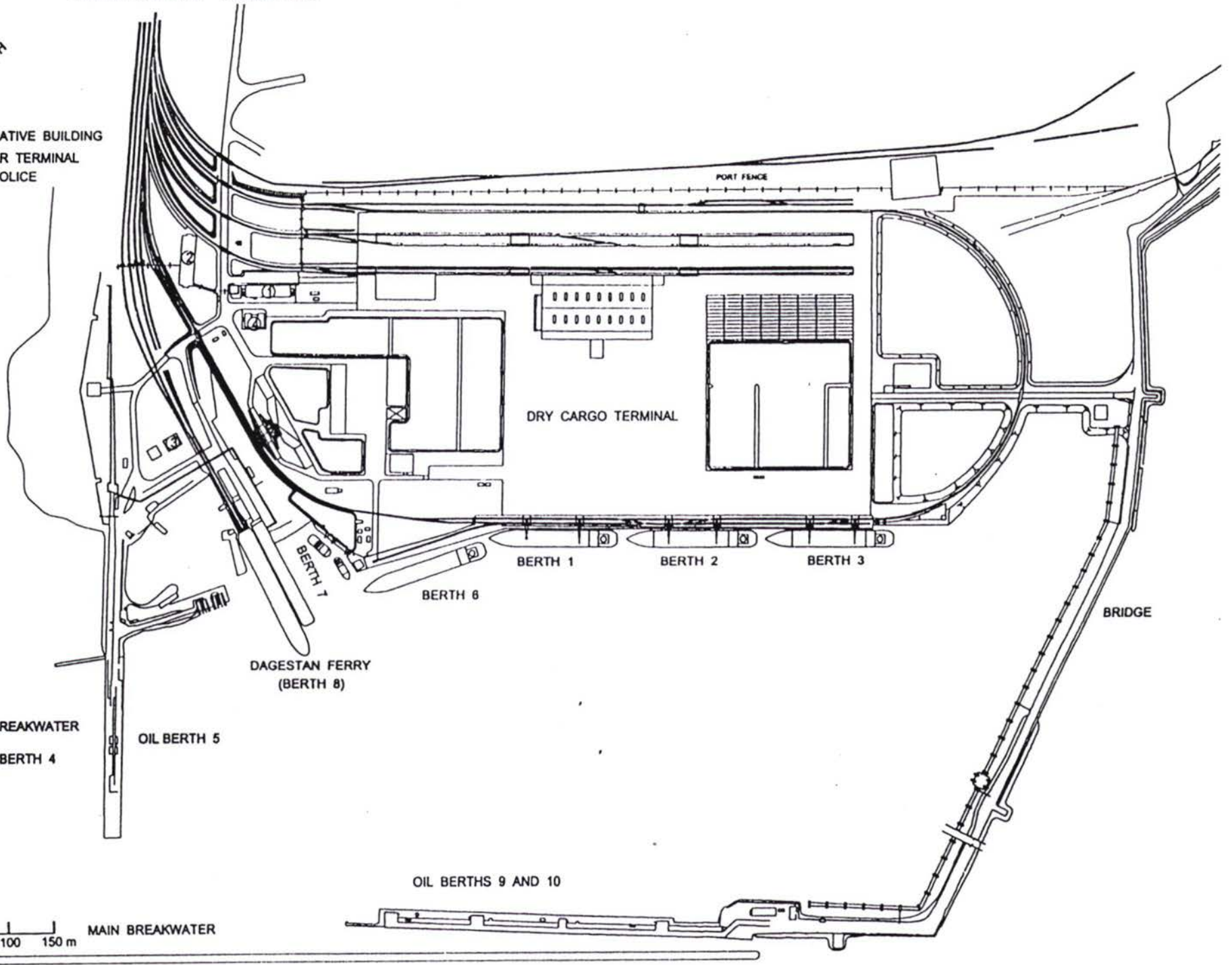
PORT FENCE

BRIDGE

MAIN BREAKWATER

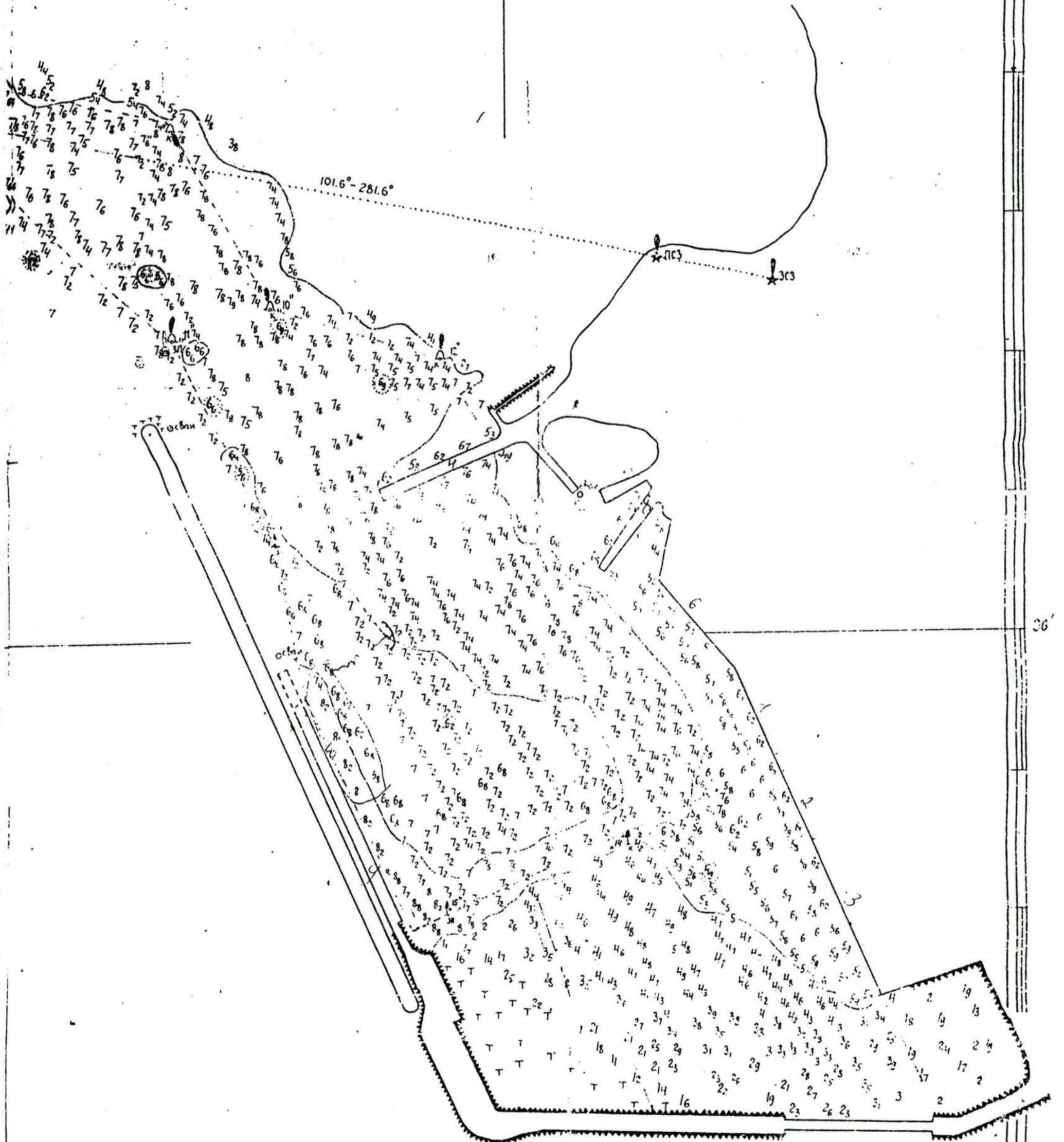
0 50 100 150 m

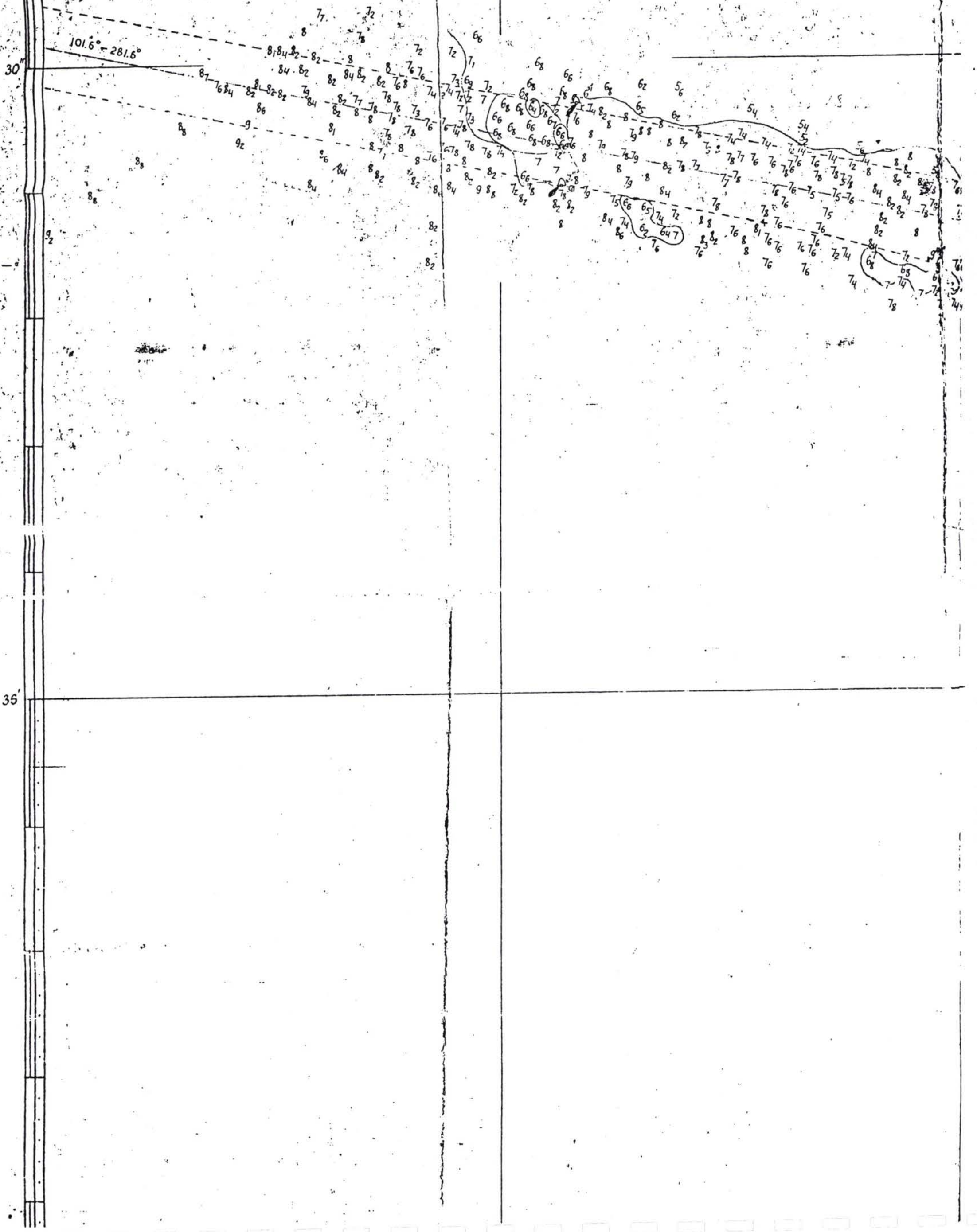
General Layout of Aktau Port



КАНАЛ И ПОРТ АКТАУ

Промер декабрь 1987года.





2. LATERAL MARKS

2.1. Definition of "conventional direction of buoyage"

The "conventional direction of buoyage", which must be indicated in appropriate nautical documents, may be either:

- 2.1.1. The general direction taken by the mariner when approaching a harbour, river, estuary or other waterway from seaward, or
- 2.1.2. The direction determined by the proper authority in consultation, where appropriate, with neighbouring countries. In principle it should follow a clockwise direction around land masses.

2.2. Buoyage Regions

There are two international Buoyage Regions A and B where lateral marks differ. These buoyage regions are indicated in Section 8.

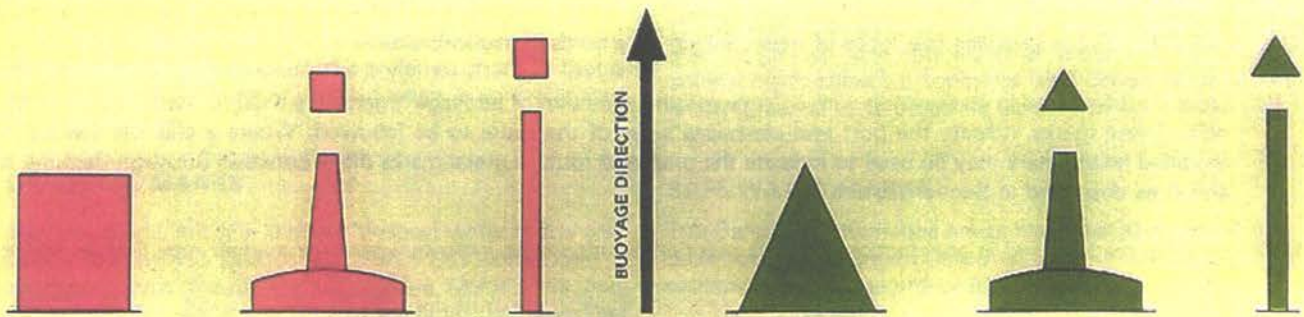
2.3. Description of Lateral Marks used in Region A

2.3.1. Port hand Marks

Colour : Red
 Shape (Buoys) : Cylindrical (can), pillar or spar
 Topmark (if any) : Single red cylinder (can)
 Light (when fitted) :
 Colour : Red
 Rhythm : Any, other than that described in section 2.3.3.

2.3.2. Starboard hand Marks

Colour : Green
 Shape (Buoys) : Conical, pillar or spar
 Topmark (if any) : Single green cone, point upward
 Light (when fitted) :
 Colour : Green
 Rhythm : Any, other than that described in section 2.3.3.



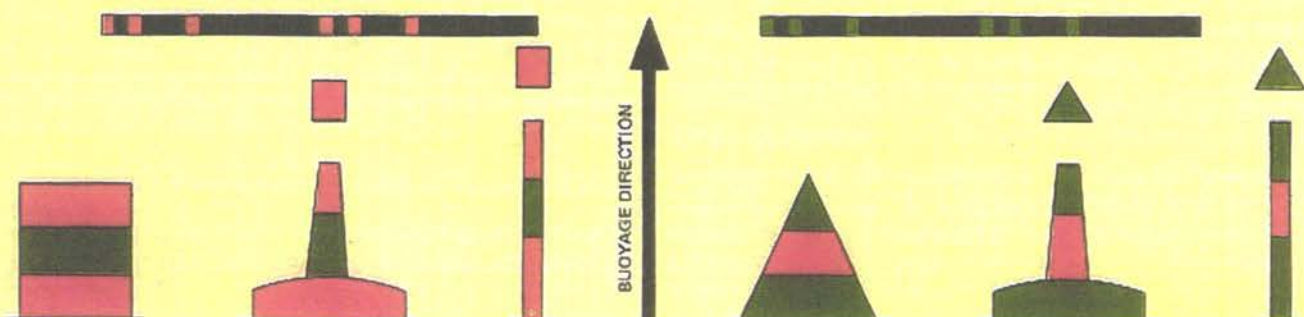
2.3.3. At the point where a channel divides, when proceeding in the "conventional direction of buoyage", a preferred channel may be indicated by a modified Port or Starboard lateral mark as follows:

2.3.3.1. Preferred channel to Starboard :

Colour : Red with one broad green horizontal band
 Shape (Buoys) : Cylindrical (can), pillar or spar
 Topmark (if any) : Single red cylinder (can)
 Light (when fitted) :
 Colour : Red
 Rhythm : Composite group flashing (2 + 1)

2.3.3.2. Preferred channel to Port :

Colour : Green with one broad red horizontal band
 Shape (Buoys) : Conical, pillar or spar
 Topmark (if any) : Single green cone, point upward
 Light (when fitted) :
 Colour : Green
 Rhythm : Composite group flashing (2 + 1)



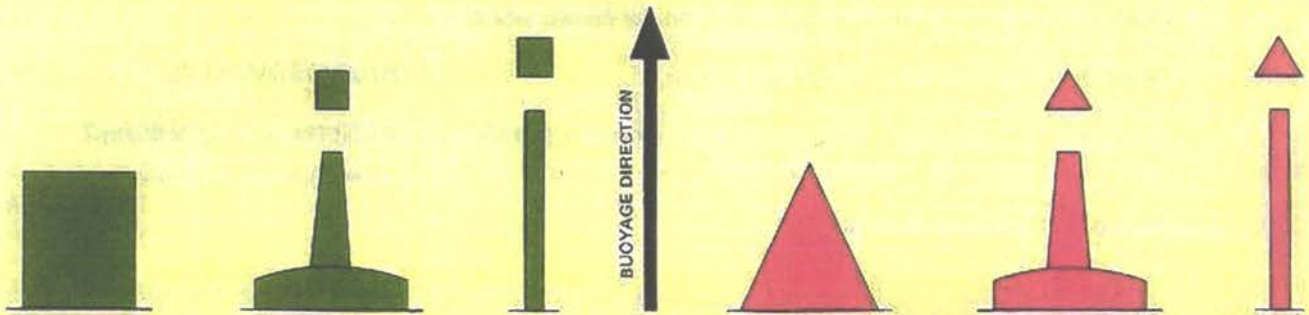
2.4. Description of Lateral Marks used in Region B

2.4.1. Port hand Marks

Colour :	Green
Shape (Buoys) :	Cylindrical (can), pillar or spar
Topmark (if any) :	Single green cylinder (can)
Light (when fitted) :	
Colour :	Green
Rhythm :	Any, other than that described in section 2.4.3.

2.4.2. Starboard hand Marks

Colour :	Red
Shape (Buoys) :	Conical, pillar or spar
Topmark (if any) :	Single red cone, point upward
Light (when fitted) :	
Colour :	Red
Rhythm :	Any, other than that described in section 2.4.3.



2.4.3. At the point where a channel divides, when proceeding in the "conventional direction of buoyage", a preferred channel may be indicated by a modified Port or Starboard lateral mark as follows:

2.4.3.1. Preferred channel to Starboard :

Colour :	Green with one broad red horizontal band
Shape (Buoys) :	Cylindrical (can), pillar or spar
Topmark (if any) :	Single green cylinder (can)
Light (when fitted) :	
Colour :	Green
Rhythm :	Composite group flashing (2+1)

2.4.3.2. Preferred channel to Port :

Colour :	Red with one broad green horizontal band
Shape (Buoys) :	Conical, pillar or spar
Topmark (if any) :	Single red cone, point upward
Light (when fitted) :	
Colour :	Red
Rhythm :	Composite group flashing (2+1)



2.5. General Rules for Lateral Marks

2.5.1. Shapes

Where lateral marks do not rely upon cylindrical (can) or conical buoy shapes for identification they should, where practicable, carry the appropriate topmark.

2.5.2. Numbering or lettering

If marks at the sides of a channel are numbered or lettered, the numbering or lettering shall follow the "conventional direction of buoyage".

3. CARDINAL MARKS

3.1. Definition of Cardinal quadrants and marks

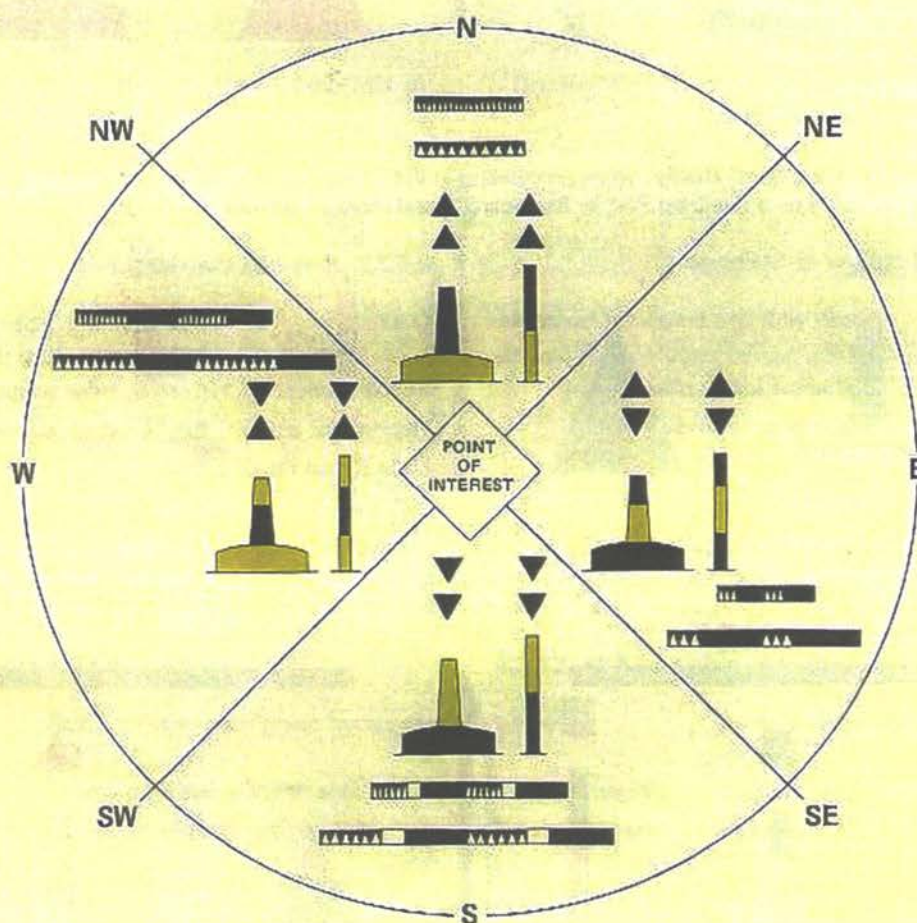
- 3.1.1. The four quadrants (North, East, South and West) are bounded by the true bearings NW-NE, NE-SE, SE-SW, SW-NW, taken from the point of interest.
- 3.1.2. A Cardinal mark is named after the quadrant in which it is placed.
- 3.1.3. The name of a Cardinal mark indicates that it should be passed to the named side of the mark.

3.2. Use of Cardinal Marks

A Cardinal mark may be used, for example:

- 3.2.1. To indicate that the deepest water in that area is on the named side of the mark.
- 3.2.2. To indicate the safe side on which to pass a danger.
- 3.2.3. To draw attention to a feature in a channel such as a bend, a junction, a bifurcation or the end of a shoal.

3.3. Description of Cardinal Marks



3.3.1. North Cardinal Mark

Topmark ^(a) :	2 black cones, one above the other, points upward
Colour :	Black above yellow
Shape :	Pillar or spar
Light (when fitted) :	
Colour :	White
Rhythm :	VQ or Q

3.3.2. East Cardinal Mark

Topmark ^(a) :	2 black cones, one above the other, base to base
Colour :	Black with a single broad horizontal yellow band
Shape :	Pillar or spar
Light (when fitted) :	
Colour :	White
Rhythm :	VQ(3) every 5s or Q(3) every 10s

3.3.3. South Cardinal Mark

Topmark ^(a) :	2 black cones, one above the other, points downward
Colour :	Yellow above black
Shape :	Pillar or spar
Light (when fitted):	
Colour :	White
Rhythm :	VQ(6) + Long flash every 10s or Q(6) + Long flash every 15s

3.3.4. West Cardinal Mark

Topmark ^(a) :	2 black cones, one above the other, point to point
Colour :	Yellow with a single broad horizontal black band
Shape :	Pillar or spar
Light (when fitted):	
Colour :	White
Rhythm :	VQ(9) every 10s or Q(9) every 15s

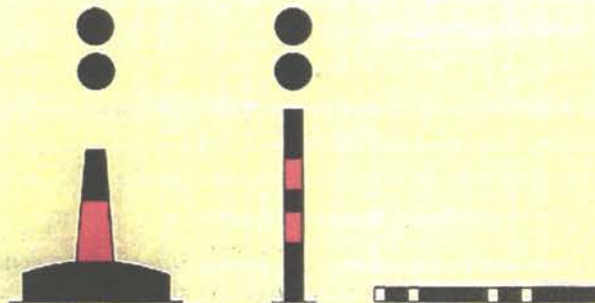
4. ISOLATED DANGER MARKS

4.1 Definition of Isolated Danger Marks

An Isolated Danger mark is a mark erected on, or moored on or above, an isolated danger which has navigable water all around it.

4.2. Description of Isolated Danger Marks

Topmark ^(b) :	2 black spheres, one above the other
Colour :	Black with one or more broad horizontal red bands
Shape :	Optional, but not conflicting with lateral marks; pillar or spar preferred
Light (when fitted) :	
Colour :	White
Rhythm :	Group flashing (2)



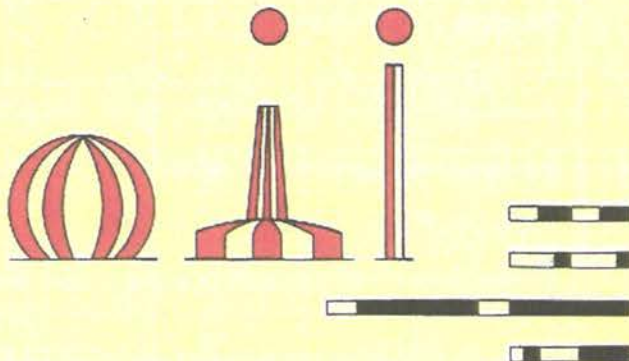
5. SAFE WATER MARKS

5.1. Definition of Safe Water Marks

Safe Water marks serve to indicate that there is navigable water all round the mark; these include centre line marks and mid-channel marks. Such a mark may also be used as an alternative to a Cardinal or a Lateral mark to indicate a landfall.

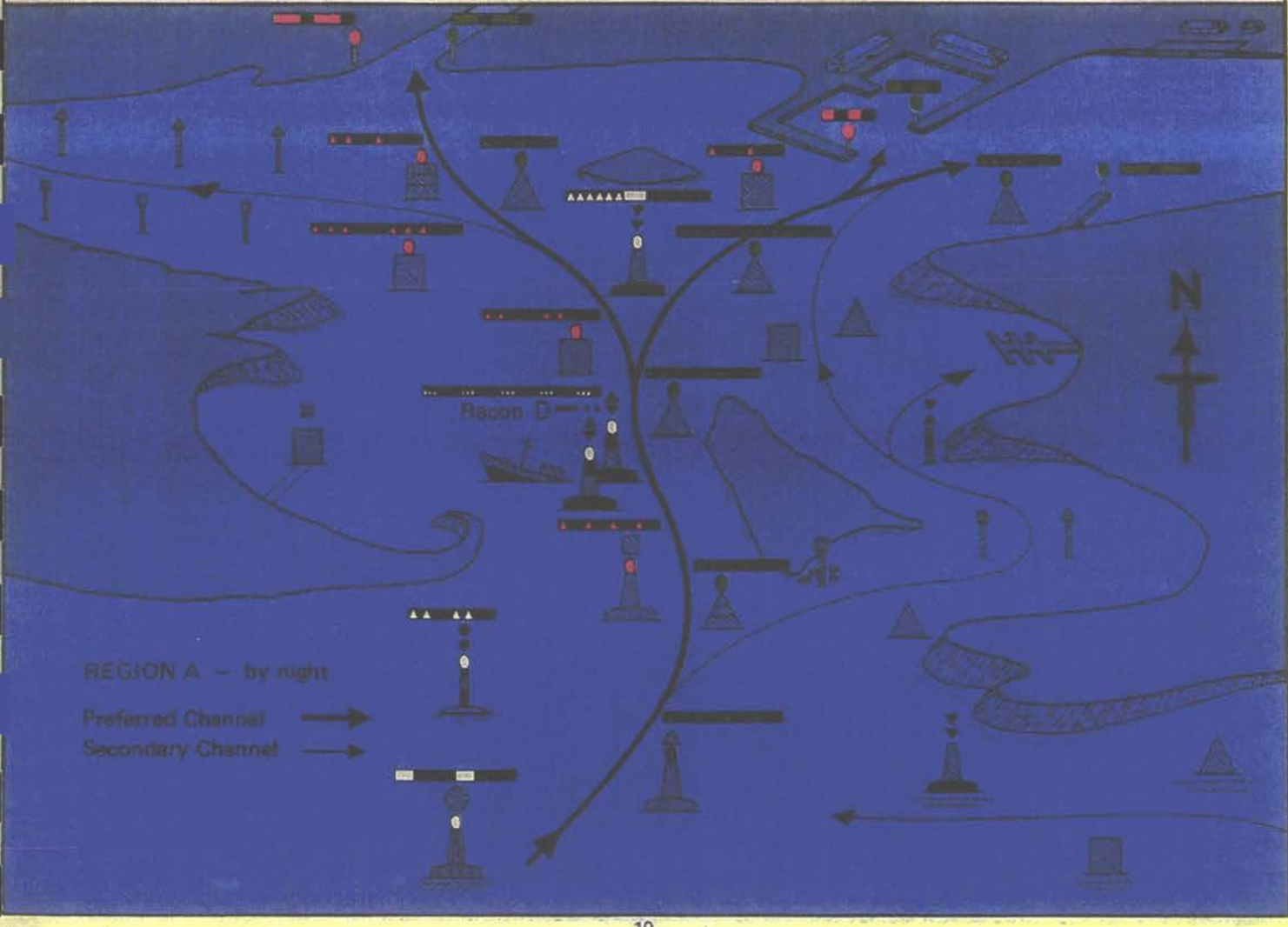
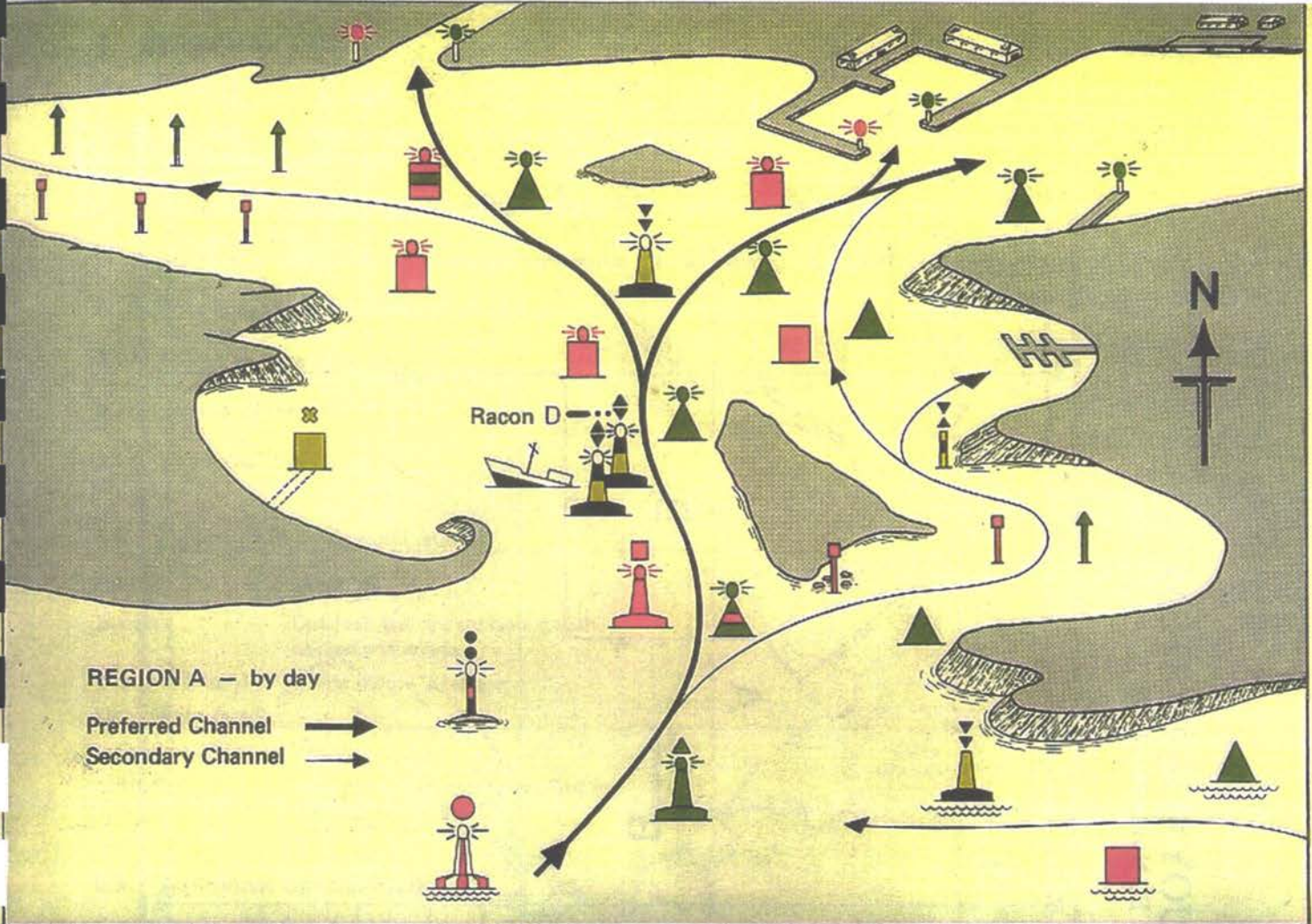
5.2. Description of Safe Water Marks

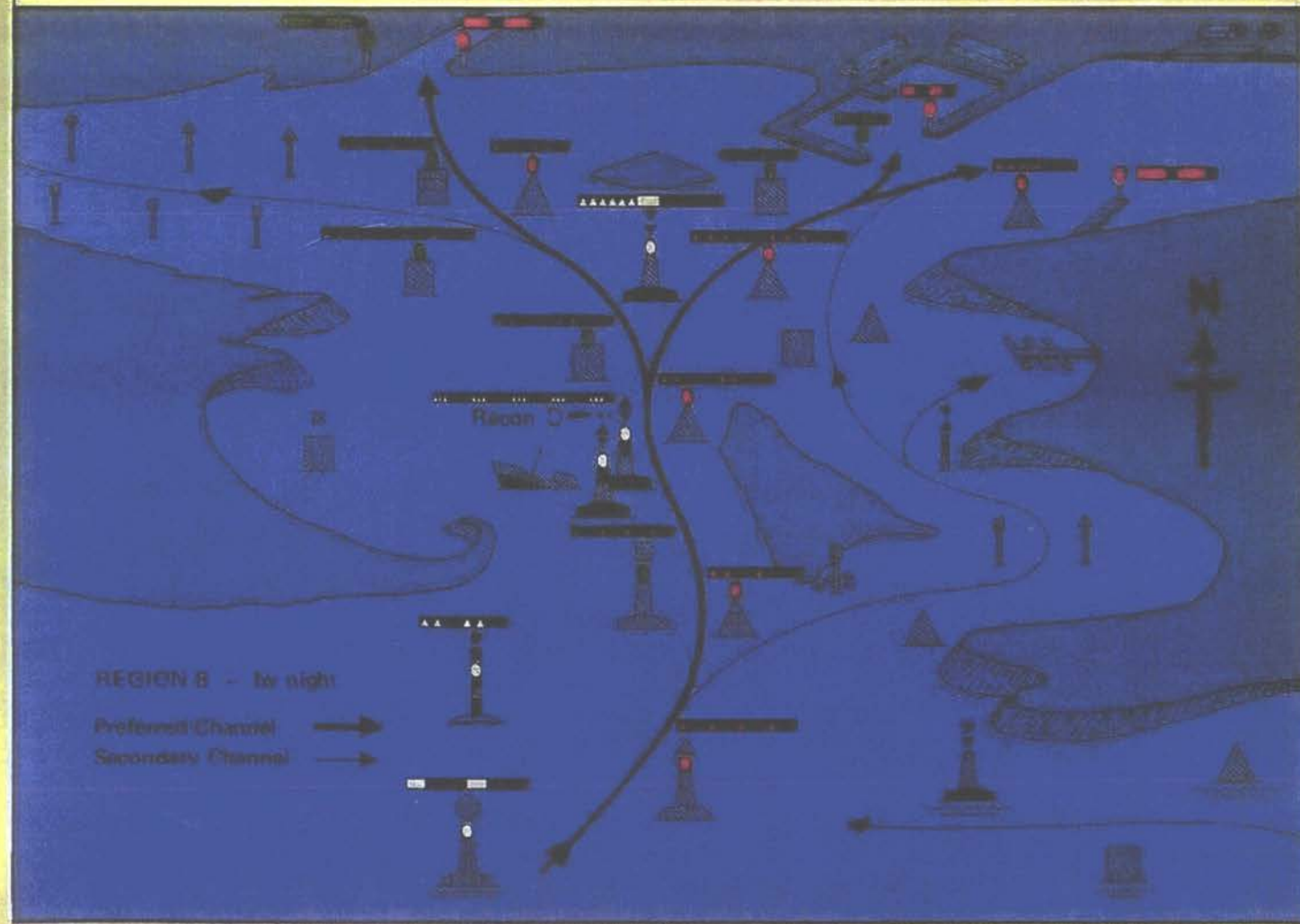
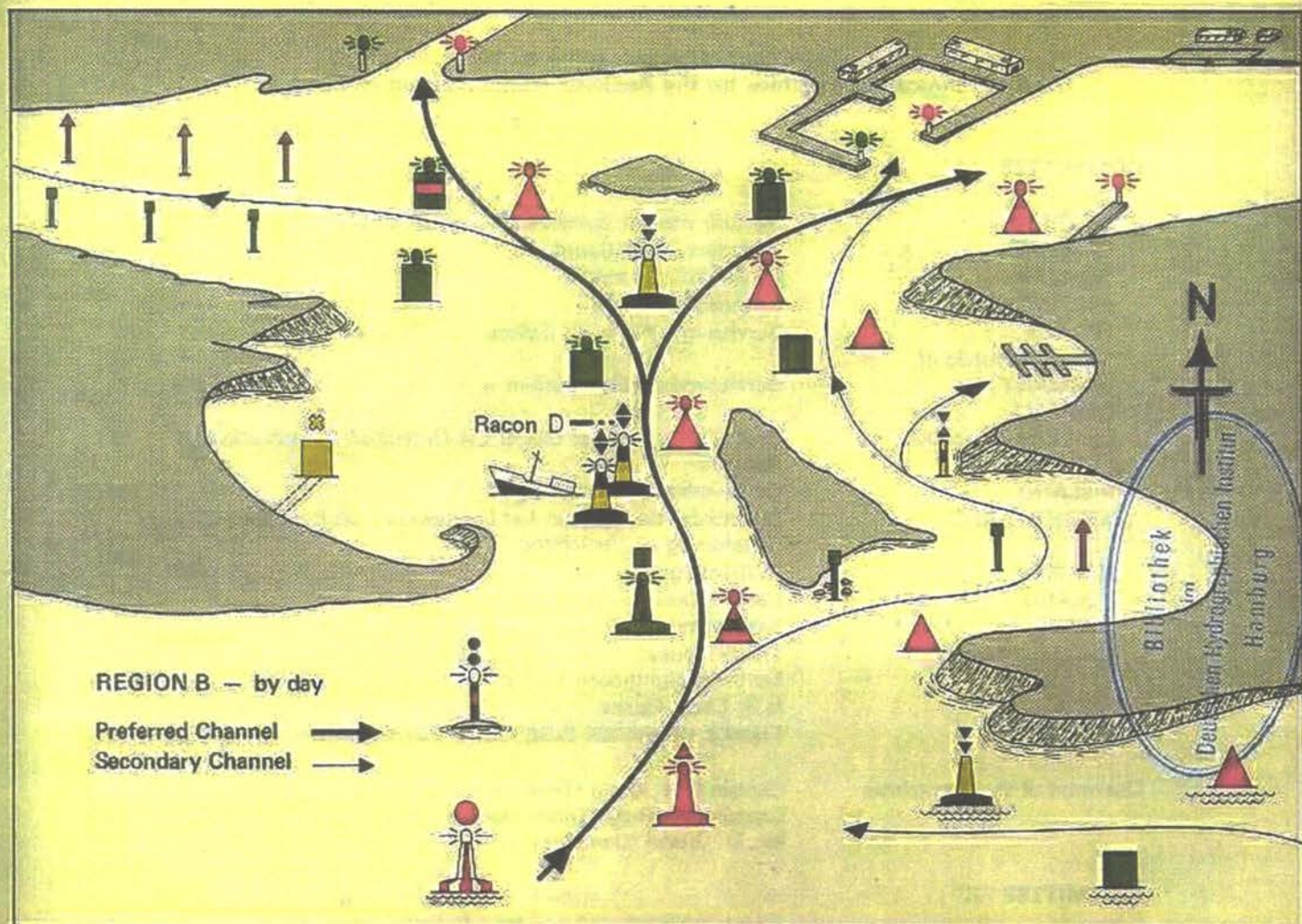
Colour :	Red and white vertical stripes
Shape :	Spherical ; pillar or spar with spherical topmark
Topmark (if any) :	Single red sphere
Light (when fitted) :	
Colour :	White
Rhythm :	Isophase, occulting, one long flash every 10s or Morse "A"



^(a) The double cone topmark is a very important feature of every Cardinal mark by day, and should be used wherever practicable and be as large as possible with a clear separation between the cones.

^(b) The double sphere topmark is a very important feature of every Isolated Danger mark by day, and should be used wherever practicable and be as large as possible with a clear separation between the spheres.





ANNEX 1: Meeting Schedule

Contact person	Position	Location	Date
Mr. Mamedov	Director of BISP	Baku International Seaport, Azerbaijan	16 May 2000, 12.30-13.30h
Mr. Soltan Kazimov	Chief Engineer of BISP		
Mrs. Emilia Agaeva	Azeri Transport Expert	Baku International Seaport, Azerbaijan	16 May 2000, 13.30-14.00h
Mrs. Raya Gasimova	Head of Economic Department of BISP	Baku International Seaport, Azerbaijan	16 May 2000, 14.00-15.30h
Mr. Rafail Mirgulamov	Head of Commercial Department of BISP	Baku International Seaport, Azerbaijan	16 May 2000, 16.30-17.30h
Mr. Boris Smolin	Advisor Tacis CU Azerbaijan	Tacis Coordination Unit, Baku, Azerbaijan	17 May 2000, 11.30-12.30h
Mr. Mahir Kazimov	Tacis Transport&Telecommunication Expert		
Mr. Bodo Rössig	Team Leader of Tacis Project, Dornier Consult	Hotel Azerbaijan, Baku, Azerbaijan	17 May 2000, 13.30-14.30h
Mr. Vakhid Aliev	Managing Director of Inflot Shipping Agency	Inflot Shipping Agency, Baku, Azerbaijan	17 May 2000, 15.00-16.00h
Capt. Chingiz Teymurov	General Manager, Transmarine Shipping Ltd.	Transmarine Shipping Ltd., Baku, Azerbaijan	17 May 2000, 17.30-19.00h
Mr. Fuad Rasulov	Azeri Shipping Expert	Hotel Azerbaijan, Baku, Azerbaijan	18 May 2000, 09.00-12.00
Mr. Marc Graille	Traceca Management Team	Hotel Azerbaijan, Baku, Azerbaijan	19 May 2000, 13.30-14.00
Mr. Kees Lanzaard	Team Leader of Tacis Project, Tebodin	BCEOM Project Office, Baku, Azerbaijan	18 May 2000, 14.00-15.30h
Mr. Mehman Abasov	Manager Caspian Region, Tebodin		
Mr. Musa Panahov	Deputy Chief of Azerbaijan State Railways	Azerbaijan State Railways, Baku, Azerbaijan	18 May 2000, 16.00-16.45h
Mrs. Nazaket Panakhova	Manager Oil Tanker Department of CSC	Caspian Shipping Company, Baku, Azerbaijan	19 May 2000, 11.00-12.00h
Mr. Alexander Bogdanchikov	Head of Department of Fuel Consumption, Exhaust Emission and Exploitational Materials	NIIT Research Institute of Transport, Almaty, Kazakhstan	22 May 2000, 11.00-12.00h
Mrs. Violetta Kurchenkova	Kazakh Maritime Transport Expert, NIIT	NIIT Research Institute of Transport, Almaty, Kazakhstan	22 May 2000, 12.00-12.45h
Dr. Eduard Kaplan	Managing Director of Transsystem Freight Forwarding Agents	Transsystem Freight Forwarders, Almaty, Kazakhstan	22 May 2000, 13.30-14.30h 27 May 2000, 15.00-16.00h
Dr. Murat Bekmagambetov	General Manager, NIIT	NIIT Research Institute of Transport, Almaty, Kazakhstan	22 May 2000, 15.00-16.00h
Mr. Ilya Segal	Deputy Director of the Railway Transport Department, MoTC	Ministry of Transport and Communication, Astana, Kazakhstan	23 May 2000, 09.30-10.30h
Mr. Daulet Saudabayev	Head of the Department for Economic Regulation, MoTC	Ministry of Transport and Communication, Astana, Kazakhstan	23 May 2000, 11.00-12.00h
Mrs. Nina Bolkuneva	Head of the Sub-Department for Investment Projects, MoTC		
Mr. Nicolai Yudin	Head of the Sub-Department for Water Transportation, MoTC		
Mr. Kozhubaev	Deputy Head of the Department for Economic Regulation, MoTC		

Mr. Baurzhan Akhmetov	Legal Department, MoTC	Ministry of Transport and Communication, Astana, Kazakhstan	23 May 2000, 12.30-13.15h
Mr. Abelgasy Kousainov	Deputy Minister of Transport, MoTC	Ministry of Transport and Communication, Astana, Kazakhstan	23 May 2000, 15.00-15.30h
Mr. Serik Baimagambetov	Head of the Department for Monitoring and Co-ordination, MoTC	Ministry of Transport and Communication, Astana, Kazakhstan	23 May 2000, 15.45-16.15h
Mrs. Sophia Aisagaliegeva	Director of the Department of Investment Policy, MoE	Ministry of Economics, Astana, Kazakhstan	24 May 2000, 10.30-12.00h
Mr. Emilio Valli	Team Leader, Tacis CU Kazakhstan	Tacis Coordination Unit, Astana, Kazakhstan	24 May 2000, 13.00-13.45h
Mr. Daulet Kabiyev	National Director, Tacis CU Kazakhstan		
Mr. Alexander Glock	Deputy Director of Capital Construction and Financial Director, ACSP	Aktau Commercial Seaport, Aktau, Kazakhstan	25 May 2000, 10.00-10.45h
Mr. Berik Ergaliev	Marketing Department of ACSP	Aktau Commercial Seaport, Aktau, Kazakhstan	25 May 2000, 11.00-11.30h
Mr. Talgat Abylgazin	Director of ACSP, Chairman of the Board of Kazmortransflot	Aktau Commercial Seaport, Aktau, Kazakhstan	25 May 2000, 11.30-12.30h
Mr. André Merrien	Task Manager, Traceca Project, BCEOM	Aktau Commercial Seaport, Aktau, Kazakhstan	25 May 2000, 13.30-14.00h
Capt. ??	Captain of the "Mercuri II", CSC	On Board of the Rail Ferry "Mercuri II"	25 May 2000, 14.30-15.00h
Mr. Bolat Jansugurov	Head of the Marketing Department, ACSP	Aktau Commercial Seaport, Aktau, Kazakhstan	25 May 2000, 15.30-17.00h
Mr. Michael Wilson	Advisor, Tacis CU Turkmenistan	Tacis Coordination Unit, Ashgabat, Turkmenistan	30 May 2000, 10.00-11.00h
Mr. Peter Verheijen	Project Manager CIS, Miltzer & Muench International Transports	Hotel Grand Turkmen, Ashgabat, Turkmenistan	30 May 2000, 15.00-16.00h
Mr. Eric van Randwijck	Senior Transport Consultant, Haskoning	Port of Turkmenbashi, Turkmenbashi, Turkmenistan	01 June 2000, 13.00-14.00h
Mrs. Gulnara Sapardudyeva	Deputy Operational Planner, Haskoning		
Mr. Jan Dekkers	Senior Project Manager, GEM Consultants		
Mr. Murad Atayev	Vice-President of Turkmen Maritime Lines	Port of Turkmenbashi, Turkmenbashi, Turkmenistan	01 June 2000, 15.00-16.30h
Mr. Akhmed Tahirov	Head of the Commercial Department, TML		
Mrs. Enegul Haidarova	Assistant to the President of TML		

Annex 3: Revised Expert Schedule for Module B: New Caspian Sea Shipping Services

No	Position PW	Year	2000												EU-Experts		
			2	3	4	5	6	7	8	9	10	11	12	EU (WD)	B/T/A (CD)	Total	
			8	12	16	20	25	29	34	39	43	48	52				
1	M. Sames, Task Manager, Transport Economist					■	■			■	■	■	■	.....	15	98	85
2	N. Bellstedt, Senior Shipping Expert				■	■	■			■	■				5	35	30
3	J. Schmidt, Maritime and Nautical Engineer				■	■	■			■					0	42	30
4	H. Wagner, Training Expert				■					.....					5	7	10
5	Training Pool (W. Arlt, K. Plate, H. Stuemer)								■			■			0	35	25
6	EU Expert Pool								■			■			5	14	15
												30	231	195			
LEGEND: EU ■ Baku/Turkmenbashi/Aktau (B/T/A) Co-ordination Work Working Days												30	165	195			

Annex: 5

Survey reports on three vessels of Caspian Shipping Company

Survey Report on the Ferry MV “Mercury 2” of Caspian Shipping Company

1 MV "Mercuri 2" - Main particulars

Register No.	843681
No. of Russian Maritime Register of Shipping	98.0188.140
IMO No.	8212556
Type	Passenger ro ro
Port of registry	Baku
Ship owner	Caspian Shipping Company
Year of built	1984
Place of built	Yugoslavia
Shipyard	
Date of which keel was laid	29 September 1983
Flag	Azerbaijan Republic
Call sign	4JJA
Minimum number of crew	15 (safe manning), on board 40 to 44
Number of passengers	137
Length / Article 2(8)	147,00 m
Length over all	154,50 m
Breadth	17,50 m
Breadth over all	18,30 m
Depth	13,45 m
Free board	3.281 mm
Draught	4,20 m
Gross tonnage	11.450
Net tonnage	3.435
Dead weight	3.985
Wagon capacity	28 standard wagons
Engine:	Internal combustion engine 2 engines, total power output 8700kW
Class	Russian Maritime of Shipping Passenger / ro - ro

1.1 Available Certificates

Classification Certificate

Passenger / ro – ro

Issued by: Russian Maritime Register of Shipping

Day of issue: Istanbul, 09 July 1998

Valid until: 26 March 2003

Passenger Ship Safety Certificate

Issued by: Russian Maritime Register of Shipping

Day of issue: Baku, 30 June 1999

Valid until: 31 July 1999 !!!

International Tonnage Certificate

Issued by: Russian Maritime Register of Shipping

Day of issue: Baku, 13 March 1998

Valid until: no entry, normally 5 years

International Load Line Certificate

Issued by: Russian Maritime Register of Shipping

Day of issue: Istanbul, 09 July 1998

Valid until: 26 March 2003

Local certificate, only in Russian

Certificate for Readiness

Issued by: Russian Maritime Register of Shipping

Day of issue: Istanbul, 09 July 1998

Valid until: 26 March 2003

It contains:

Certificate for passengers' safety

MARPOL, including sewage and garbage

Limited to 01.02.1999!

Radio equipment has to be change to GMDSS equipment.

(Copy hang out in passenger area)

Safety Management Certificate

Issued by: Russian Maritime Register of Shipping

Day of issue: Baku, Nov. 1997

Valid until: November 2002

1.2 Report on findings of the inspection of the MV “Mercury 2”

1.2.1 General

The Master of the vessel is Captain Jafaraga. The information for this report was obtained by inspecting certificates and during travel with the ferry and discussions with crewmembers.

The MV Mercuri 2 is a ro-ro passenger ferry with only one hold and without any cross- or lengthways bulkheads. For cargo operations, the stern flap is operated hydraulically and a shore based ramp is needed. The capacity of the ferry is 28 standard wagons and 137 passengers.

The ship was built for the Caspian Shipping Company for the Baltic Sea trade. She sailed under the Flag of Cyprus for several years between Kiel, Kaliningrad, Riga and Leningrad. Later, the ship sailed through the rivers and channels from St. Petersburg to the Caspian Sea. For that trip they had to remove the upper part of the accommodation superstructure.

1.2.2 Results of observation and conversations on board

The ship's officers were holders of the appropriate licences, mainly unlimited world wide. During the time the consultant spent on the bridge the officer of the watch received a GPS and ECDIS error message with error number. He became rather helpless and continued navigation with radar only. He was not able to look for help in the manuals or to try a restart.

On the bridge three 3 cm (x-band) radar sets are installed. Two of them (Kelvin Hughes and Racal Decca) had a break down and were out of order. The third, a Racal Decca 2490, ARPA, was in action but incorrectly adjusted, with too much gain and wrong tuning.

1.2.3 Safety

Muster lists were not exhibited in prominent places as required by international regulations, but instructions about handling the lifeboats were exhibited outside near the life boats.

The ferry has a total of two synthetic material lifeboats with a capacity of 55 persons each. The conditions of the boats and of the gravity davits seemed to be okay, but it was quite obvious that the boats were never swung out in the last couple of years. The wires and the winches were greased, but the grease was hard and dried out.

On the top deck there were eight life rafts, four on each side, fabricated in Germany, by Continental/Messerschmitt. Each has a capacity of 25 persons. According to IMO regulation, they must be surveyed, emergency rations replaced and repacked by an authorised firm each year. However, the last survey was more than three years ago in January 1997. The necessary instructions for handling the life rafts and the hydraulic release units were not exhibited. The launching cranes for these life rafts were in a bad condition. The starboard crane appeared to be workable, but the portside crane's the wires were heavily corroded and kinked. The steering equipment was covered with old paint and can probably not be handled without any tools.

From the life buoys' self-igniting lights eight were checked by the Consultant. None of them was working. All life buoys were in a very bad condition, too. The covers were broken and not water tight. On some, the name of the vessel and its home port was hardly readable.

The lifejackets in the cabins were approved and in good order and condition.

The fire control and safety plan was exhibited in the passenger alleyway. It was prepared by Bartels and Lüders in Hamburg. Unfortunately, the date of the drawing was not readable.

The hydrants, nozzles, fire hoses which were checked were partly in a bad condition. Especially the rubber gaskets in the hydrants were missing, deteriorated or porous. The hydrants and coupling lugs were hardly moveable or not moveable at all. The portable fire extinguishers were checked the last time by Atlanta Company /Turkey at month 6 of 1996. From the outside they looked well and useable.

The smoke-, flame- and heat-detectors looked well and workable.

The alarm bells looked well and workable.

The fire main system was checked the last time in the sixth and seventh month 1995 by Arling Control / Lynköping, Sprinkler Service AB:

The fire dampers at the ventilation units were partly not in working condition. The sieves are partly damaged.

Part of the emergency lighting system on the passenger decks was not useable. Some sockets were broken and some cables were not connected.

In the outside hallways many cable tracks were not fixed properly to the ceiling.

The cranes behind the boat stations were in very bad order and condition. Especially the crane at the port side did not seem to be in a working condition. The wire was broken and the hook detached. The handling equipment was covered with paint and unusable.

All the mooring lines were in bad condition.

The gangway construction was in good order and condition. The ropes of the rail were not fastened properly and the moveable rail was not placed, though.

The garbage of the galley, restaurants and cabins was not delivered at shore in Aktau. When boarding the ferry in Aktau, approximately a half m³ of garbage was stored at the stern of the sun deck. The two dedicated plastic garbage containers were clean and not in use. Next morning, at sea, the garbage was gone. During the daytime this place was filled up again. In Aktau and Baku there is a possibility to deliver the garbage ashore, but the ship has to pay for this service and, therefore, the garbage was rather dumped illegally at sea.

After putting to sea, the smoke of both exhaust pipes of the main engines was at first black. After approximately five hours the smoke became grey and then nearly clear. This illustrates the bad quality of the fuel and also the necessity of maintenance and adjustment.

1.2.4 Summary

This sixteen years old ferry is in a very bad condition. Only the hull outside was painted well. The rust was covered with paint. The decks are not well painted. The boatswain told that the crew is not motivated, because the salary is too low. He for himself earns only 100 USD per month and so the company cannot expect full engagement from the crew.

For the passage from Aktau 20 hours were needed. Only approximately 100 passengers and three cars were on board. The average price of the tickets is 40 USD.

Only very few passengers visited the restaurant. Most of them had their own provision and took their meals in the cabins or on deck. In the cabins there were no trash cans. The rest of the meals, paper and plastic waste the passengers threw directly over board.

The service for cabins and restaurant was not according to international standard. The cabins were given to the passengers without bedclothes, towels and toilet paper. The table cloths in the restaurant were already dirty when the Consultants entered the vessel and were not changed during passage. The waitresses were helpful but not friendly.

Concerning this environment the crew did not show any understanding.

During Soviet time the ferry transported very often more than five hundred passengers without any more rescue equipment. They were accommodated like deck passengers.

It has to be emphasised that the Passenger Safety Certificate, which was exhibited on the ferry, was issued in Istanbul July 1998 and valid until February 1999. From the Russian Maritime Register of Shipping a copy from the last certificate was received. This was issued 30 June 1999 and valid until 31 July 1999. It can be assumed that the ferry is sailing since 1 August 1999 without a valid Passenger Safety Certificate.

Survey Report on the Ferry “Mercury 2” of Caspian Shipping Company

- Photos -



View to ferry Mercury 2, Ferry Terminal Aktau



RoRo ramp in Aktau, the rails are covered with timber, railway operation not possible



Garbage area Ferry Mercury 2



Life-belt and emergency lamp construction without socket and bulb



Portside crane behind lifeboat, out of order



Life rafts and crane, portside



Ferry station Aktau



Ceiling lamp near lifeboat station, out of order



Cable way near lifeboat station



Three garbage containers with different kinds of waste on the ferry quay in Baku. In 5 days no change of the filling level and no collection



РОССИЙСКИЙ МОРСКОЙ РЕГИСТР СУДОХОДСТВА
RUSSIAN MARITIME REGISTER OF SHIPPING

КОПИЯ
СОПУ

241
1.2.10

МЕЖДУНАРОДНОЕ
МЕРИТЕЛЬНОЕ СВИДЕТЕЛЬСТВО (1969 г.)
INTERNATIONAL TONNAGE CERTIFICATE (1969)

Выдано Российским Морским Регистром Судоходства в соответствии с положениями Международной конвенции по
обмеру судов 1969 г. по уполномочию Правительства Азербайджанской Республики,

из которого Конвенция вступила в силу 01 октября 1997 г.

Issued by Russian Maritime Register of Shipping under the provisions of the International Convention on Tonnage
Measurement of Ships, 1969, under the authority of the Government of Azerbaijan Republic,

for which the Convention came into force on 01 st October 1997

Название судна Name of Ship	Регистрационный номер или по- зывной сигнал Distinctive Number or Letters	Порт приписки Port of Registry	Дата* Date*	Номер ИМО IMO Number
"MERKURI-2"	4JJA	Баку	1983	82I2556
"MERCURI-2"		Baku		

*Дата закладки киля или подобной стадии постройки судна (статья 2(6)) или дата, когда судно подверглось существенным конструктивным
меншениям или переоборудованию (статья 3(2) (b)), смотря по тому, что имело место.
Date on which the keel was laid or the ship was at a similar stage of construction (Article 2(6)) or date on which the ship underwent alterations or
modifications of a major character (Article 3(2) (b)), as appropriate.

ГЛАВНЫЕ РАЗМЕРЕНИЯ/MAIN DIMENSIONS

Длина (статья 2(8)) Length (Article 2(8))	М m	Ширина (правило 2(3)) Breadth (Regulation 2(3))	М m	Теоретическая высота борта до верхней палубы в середине длины судна (правило 2(2)) Moulded Depth Amidships to Upper Deck (Regulation 2(2))	М m
147,00		17,50		13,45	

ВМЕСТИМОСТИ СУДНА/THE TONNAGES OF THE SHIP ARE:

Грубая вместимость 11450 Чистая вместимость 3435
Gross tonnage Net tonnage

Настоящим удостоверяется, что вместимости судна определены в соответствии с положениями Международной
конвенции по обмеру судов 1969 г.

This is to certify that the tonnages of this ship have been determined in accordance with the provisions of the International Convention
on Tonnage Measurement of Ships, 1969.

Выдано в П. Баку 13 марта 1998
Issued at P. Baku 13 March 1998
(место выдачи Свидетельства) (дата выдачи)
place of issue of Certificate date of issue

Нижеподписавшийся заявляет, что он действительно уполномочен вышеупомянутым Правительством выдать настоящее Свидетельство.
The undersigned declares that he is duly authorized by the said Government to issue this Certificate.

М.П. Российский Морской Регистр Судоходства
L.S. Russian Maritime Register of Shipping
98.0058.140
(подпись)
signature



**ПРОСТРАНСТВА, ВКЛЮЧЕННЫЕ ВО ВМЕСТИМОСТЬ
SPACES INCLUDED IN TONNAGE**

**БАЛОВАЯ ВМЕСТИМОСТЬ
GROSS TONNAGE**

Наименование пространства Name of Space	Расположение III. Location fts.	Длина, м Length, m	Объем, м ³ Volume, m ³
Подпалубное пространство Underdeck space	НОС ... КОРМА bow ... stern	153,48	31537,24
Надстройка и рубка на верхней палубе Superstructure and deckhouse on the upper deck	33 ... 184	112,00	4662,65
Рубка 2-го яруса Deckhouse 2 nd tier	69 ... 182	83,60	2540,47
Шахты вентиляции Air trunks	ОТКРЫТЫЕ ПАЛУБЫ weather decks		81,99
Люки Hatches	ВЕРХНЯЯ ПАЛУБА, КРЫША рубки Upper deck, accommodation roof		2,42
Дымовые трубы Пр.Б и ЛБ Funnel SB and P./S.	33 ... 57	17,80	389,54
Мачта Mast	163 ... 166	3,80	16,22
СУММАРНЫЙ ОБЪЕМ TOTAL VOLUME			39230,53

СКЛЮЧЕННЫЕ ПРОСТРАНСТВА (правило 2(5))
EXCLUDED SPACES (Regulation 2(5))

Звездочкой (*) должны быть отмечены те перечисленные выше пространства, которые содержат как закрытые, так и исключенные пространства.
An asterisk (*) should be added to those spaces listed above which comprise both enclosed and excluded spaces.

**ПРОСТРАНСТВА, ВКЛЮЧЕННЫЕ ВО ВМЕСТИМОСТЬ
SPACES INCLUDED IN TONNAGE**

**ЧИСТАЯ ВМЕСТИМОСТЬ
NET TONNAGE**

Наименование пространства Name of Space	Расположение Location	Длина, м Length, m	Объем, м ³ Volume, m ³
Пространство для вагонов Wagons compartment	Нижняя палуба -4 ... I88 Lower deck	140,15	13737,24
Пространство для автомобилей Cars compartment	Палуба двойного дна 62 ... I76 Double bottom deck	84,65	2541,82
СУММАРНЫЙ ОБЪЕМ TOTAL VOLUME			16279,06

ЧИСЛО ПАССАЖИРОВ (правило 4(1)) NUMBER OF PASSENGERS (Regulation 4(1))	ТЕОРЕТИЧЕСКАЯ ОСАДКА (правило 4(2)) MOULDED DRAUGHT (Regulation 4(2))
Число пассажиров в каютах с числом коек не более 8 Number of passengers in cabins with not more than 8 berths	4,03
Число остальных пассажиров Number of other passengers	137 -

Дата и место первоначального обмера
 Date and place of original measurement: 20.04.1985, Пула, Югославия
 Pula, Yugoslavia

и место последнего предыдущего переобмера
 Date and place of last previous remeasurement: 26.03.93, Гамбург
 Gamburg

ПРИМЕЧАНИЯ:
REMARKS: Переобмер произведен после переоборудования.
 Remeasurement was made after refitment.

«ГЛОБЕРЕНС»
 Главный инженер-исследователь
 Ч.И.О. *Владимир* Подпись *В.И.* Дата 17.03.94



МЕЖДУНАРОДНОЕ СВИДЕТЕЛЬСТВО
О ГРУЗОВОЙ МАРКЕ (1966 г.)

INTERNATIONAL LOAD LINE CERTIFICATE (1966)

Выдано в соответствии с положениями Международной конвенции о грузовой марке 1966 г. по уполномочию правительства
Азербайджанской Республики Российским Морским Регистром Судоходства
(название страны)

Issued under the provisions of the International Convention on Load Lines, 1966, under the authority of the Government of
Azerbaijan Republic by Russian Maritime Register of Shipping
(name of the State)

СВЕДЕНИЯ О СУДНЕ
ARTICULARS OF SHIP

Название судна Name of Ship	Позывной сигнал Distinctive Number Letters	Порт приписки Port of Registry	Длина (L), как она определена в статье 2(8) Length (L), as defined in Article 2 (8)	Номер ИМО IMO Number
"MERKURI-2"	4JJA	Баку	147,00	82I2556
"MERCURI-2"		Baku		

Надводный борт назначен как:
Freeboard assigned as:

Новому судну
A new ship

Существующему судну
An existing ship

Тип судна
Type of ship:

~~Тип «А»
Type «А»~~

~~Тип «В»
Type «В»~~

~~Тип «В» с уменьшенным надводным бортом
Type «В» with reduced freeboard~~

~~Тип «В» с увеличенным надводным бортом
Type «В» with increased freeboard~~

26.12.2000г. - 26.06.2001г.

Дата первоначального или периодического освидетельствования
Date of initial or periodical survey

Настоящим удостоверяется, что данное судно освидетельствовано, надводные борта назначены и грузовые марки, указанные выше, нанесены в соответствии с Международной конвенцией о грузовой марке 1966 г.
This is to certify that the ship has been surveyed and that the freeboards have been assigned and load lines shown above have been marked in accordance with the International Convention on Load Lines, 1966.

Настоящее Свидетельство сохраняет силу до 26 марта 2003
This Certificate is valid until March

при условии, что
subject to

ежегодные освидетельствования выполняются в соответствии со статьёй (14) (1) (с) Конвенции.
annual survey in accordance with Article 14 (1) (c) of the Convention.

Выдано в П. Стамбул
Issued at P. Istanbul
(место выдачи Свидетельства)
(place of issue of Certificate)

09 июля 1998г.
09th July 1998
(дата выдачи)
(date of issue)



М.П.
L.S.

[Handwritten Signature]
(подпись должным образом уполномоченного лица,
выдавшего Свидетельство)
(signature of duly authorized official issuing the Certificate)

№ 98.0183.140

„ПРОВЕРЕН“
Главный инженер-инспектор
Ф.И.О. Подпись Дата
Винявский [Signature] 09.07.98

Примечание 1. Если судно отправляется из порта, находящегося на реке или в пределах внутренних вод, то разрешается большая загрузка, соответствующая массе топлива и всех других материалов, необходимых для расходувания между пунктами отправления и выходом в открытое море.

Note 1. When a ship departs from a port situated on a river or inland waters, deeper loading shall be permitted corresponding to the mass of fuel and all other materials required for consumption between the point of departure and the sea.

Примечание 2. Если судно находится в пресной воде с плотностью, равной единице, соответствующая грузовая марка может быть погружена на величину указанной выше поправки для пресной воды. Если плотность отличается от единицы, поправка должна быть сделана пропорционально разнице между 1,025 и действительной плотностью.

Note 2. When a ship is in fresh water of unit density, the appropriate load line may be submerged by the amount of the fresh water allowance shown above. Where the density is other than unity, an allowance shall be made proportional to the difference between 1,025 and the actual density.

Надводный борт от палубной линии
Freeboard from deck line

Грузовая марка
Load Line

Тропический Tropical	328I	мм (Т) mm (T)	-	мм выше (Л) mm above (S)
Летний summer	328I	мм (Л) mm (S)	На уровне верхней кромки линии, проходящей через центр кольца. Upper edge of line through centre of ring.	
Зимний winter	328I	мм (З) mm (W)	0	мм ниже (Л) mm below (S)
Зимний для Северной Атлантики winter North Atlantic	-	мм (ЗСА) mm (WNA)	-	мм ниже (Л) mm below (S)
Лесной тропический Timber tropical	-	мм (ЛТ) mm (LT)	-	мм выше (ЛЛ) mm above (LS)
Лесной летний timber summer	-	мм (ЛЛ) mm (LS)	-	мм выше (Л) mm above (S)
Лесной зимний timber winter	-	мм (ЛЗ) mm (LW)	-	мм ниже (ЛЛ) mm below (LS)
Лесной зимний для Северной Атлантики timber winter North Atlantic	-	мм (ЛЗСА) mm (LWNA)	-	мм ниже (ЛЛ) mm below (LS)

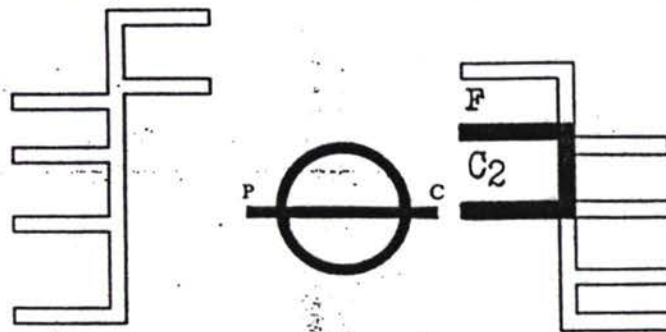
Примечание. Надводные борты и грузовые марки, которые не применяются, в Свидетельство могут не вноситься.
Note. Freeboards and load lines which are not applicable need not be entered on the Certificate.

Поправка на пресную воду для всех надводных бортов, кроме лесного 89 мм
Allowance for fresh water for all freeboards other than timber 89 mm

для лесного надводного борта - мм
for timber freeboard - mm

Верхняя кромка палубной линии, от которой измерены указанные выше надводные борты, находится
The upper edge of the deck line from which these freeboards are measured

на уровне -мм нижней палубы у борта.
opposite to the -mm lower deck at side.



Настоящим удостоверяется, что при ежегодном освидетельствовании, требуемом статьёй 14 (1) (с) Конвенции, установлено, что данное судно отвечает соответствующим положениям Конвенции.

This is to certify that at an annual survey required by Article 14 (1) (c) of the Convention, this ship was found to comply with the relevant provisions of the Convention.

Место
Place

Дата
Date

(штамп или печать полномочной организации)
seal or stamp of the Authority, as appropriate

(подпись должным образом уполномоченного лица)
signature of duly authorized official

Место
Place

Дата
Date

(штамп или печать полномочной организации)
seal or stamp of the Authority, as appropriate

(подпись должным образом уполномоченного лица)
signature of duly authorized official

Место
Place

Дата
Date

(штамп или печать полномочной организации)
seal or stamp of the Authority, as appropriate

(подпись должным образом уполномоченного лица)
signature of duly authorized official

Место
Place

Дата
Date

(штамп или печать полномочной организации)
seal or stamp of the Authority, as appropriate

(подпись должным образом уполномоченного лица)
signature of duly authorized official

Поскольку положения Конвенции полностью выполняются на данном судне, срок действия настоящего Свидетельства в соответствии со статьёй 19 (2) Конвенции продлён до _____

The provisions of the Convention being fully complied with by this ship, the validity of this Certificate is, in accordance with Article 19 (2) of the Convention, extended until _____

Место
Place

Дата
Date

(штамп или печать полномочной организации)
seal or stamp of the Authority, as appropriate

(подпись должным образом уполномоченного лица)
signature of duly authorized official



COPY

КЛАССИФИКАЦИОННОЕ СВИДЕТЕЛЬСТВО
CLASSIFICATION CERTIFICATE

Выдано в соответствии с Правилами классификации и постройки морских судов Российского Морского Регистра Судоходства
Issued under the provisions of the Rules for the Classification and Construction of Sea-Going Ships of Russian Maritime Register of Shipping

Название судна Name of Ship	"MERCURI-2" "MERCURI-2"	Флаг Flag	Азербайджанской Республики Azerbaijan Republic				
Регистровый номер Registered Number	84368I	Номер ИМО IMO Number	8212556	Позывной сигнал Call Signal	4JJA		
Порт приписки Port of Registry	Баку Baku	Год и место постройки Year and place of build	1984, Югославия Yugoslavia				
Судовладелец Shipowner	Каспийское морское пароходство Caspian Shipping Company	Тип Type	пассажирское/накатное passenger/go-go				
Длина Length	147.00 м	Ширина Breadth	17.50 м	Высота борта Depth	13.45 м	Надводный борт Freeboard	328I мм
Заловая вместимость Gross Tonnage	11450	Дедвейт Deadweight	3985 т	Материал корпуса Material of hull	сталь steel		

ГЛАВНЫЕ МЕХАНИЗМЫ
MAIN ENGINES

Тип Type	Двигатель внутреннего сгорания Internal combustion engine	Число Number	два two
Суммарная мощность Total power output	8700 кВт	Год и место постройки Year and place of build	1984, Югославия Yugoslavia

ГЛАВНЫЕ КОТЛЫ
MAIN BOILERS

Тип Type	-	Число Number	-
Год и место постройки Year and place of build	-		

Настоящим удостоверяется, что в результате произведенного освидетельствования судно, его устройства и оборудование удовлетворяют требованиям Правил, на основании чего судну приеврен/возобновлен класс с символом:
This is to certify that as a result of the survey performed the ship, her equipment and arrangements are found to be in compliance with the requirements of the Rules, based on which class with the following notation is assigned/renewed to the ship:

KM ⊕ I3 [2] I A2 паром
ferry

ПРИМЕЧАНИЕ. Свидетельство теряет силу в следующих случаях: после истечения срока его действия; если судно не было предъявлено к обязательному освидетельствованию в предусмотренный срок; после аварийного случая, если в порту, в котором он произошел, или в первом порту, в который зайдет судно после аварийного случая, оно не будет предъявлено к освидетельствованию; после введения не согласованных с Российским Морским Регистром Судоходства конструктивных изменений; при нарушении определенного района плавания или погрузке судна свыше установленной грузовой марки; при невыполнении условий или указаний, предъявленных Российским Морским Регистром Судоходства.

NOTE. The Certificate ceases to be valid in the following cases: after the expiry of terms; if the ship has not been subjected to a mandatory survey in due time; after an accident, unless she is submitted to a survey at port where the accident took place or at the first port she calls after the accident; after carrying out structural alterations not agreed before with Russian Maritime Register of Shipping; if violating the specified area of navigation or loading the ship above the assigned load line; if conditions or instructions of Russian Maritime Register of Shipping have not been complied with.

ПОДТВЕРЖДЕНИЕ ЕЖЕГОДНЫХ И ПРОМЕЖУТОЧНЫХ ОСВИДЕТЕЛЬСТВОВАНИЙ
ENDORSEMENT FOR ANNUAL AND INTERMEDIATE SURVEYS

Первое ежегодное освидетельствование
First annual survey

На основании произведённого освидетельствования класс подтверждается.
On the basis of the performed survey the class is confirmed.

Место Place *в. Глазу* Дата Date *30 июля 1998*
Российский Морской Регистр Судоходства
Russian Maritime Register of Shipping
М.П. *Пресвятов*
L.S. (подпись уполномоченного лица)
(signature of authorized official)

Второе ежегодное/промежуточное* освидетельствование
Second annual/intermediate* survey

На основании произведённого освидетельствования класс подтверждается.
On the basis of the performed survey the class is confirmed.

Место Place _____ Дата Date _____
Российский Морской Регистр Судоходства
Russian Maritime Register of Shipping
М.П. _____
L.S. _____ (подпись уполномоченного лица)
(signature of authorized official)

Третье ежегодное/промежуточное* освидетельствование
Third annual/intermediate* survey

На основании произведённого освидетельствования класс подтверждается.
On the basis of the performed survey the class is confirmed.

Место Place _____ Дата Date _____
Российский Морской Регистр Судоходства
Russian Maritime Register of Shipping
М.П. _____
L.S. _____ (подпись уполномоченного лица)
(signature of authorized official)

Четвёртое ежегодное освидетельствование
Fourth annual survey

На основании произведённого освидетельствования класс подтверждается.
On the basis of the performed survey the class is confirmed.

Место Place _____ Дата Date _____
Российский Морской Регистр Судоходства
Russian Maritime Register of Shipping
М.П. _____
L.S. _____ (подпись уполномоченного лица)
(signature of authorized official)

* Ненужное зачеркнуть.
Delete as appropriate.

Постоянные ограничения
Permanent restrictions

Прочие характеристики
Other characteristics

Свидетельство действительно до 26 марта 2003 при условии ежегодного его подтверждения в
The Certificate is valid until 26 March 2003 subject to annual confirmation in accordance

с Ответствия с Правилами.
with the Rules.

Освидетельствование Судна произведено в порту Стамбул Дата 09 июля 1998г.
survey of the ship is carried out at the port of Istanbul Date 09th July 1998



Российский Морской Регистр Судоводства
Russian Maritime Register of Shipping

[Handwritten Signature]
(подпись должным образом уполномоченного лица,
выдавшего Свидетельство
signature of duly authorized official issuing the Certificate)

98.0188.140

„ПРОВЕРЕН“

Главный инженер-инспектор

ПРОДЛЕНИЕ КЛАССА
EXTENSION OF THE CLASS

Ф.И.О. Подпись Дата
Заволожови. [Signature] 2.6.88

на основании произведенного освидетельствования класс продлен до
on the basis of the performed survey the validity of the class is extended until

Место [Redacted] Дата [Redacted]
ace [Redacted] Date [Redacted]

Российский Морской Регистр Судоводства
Russian Maritime Register of Shipping

М.П.
L.S.

(подпись уполномоченного лица)
signature of authorized official

**ВРЕМЕННЫЕ ОГРАНИЧЕНИЯ И ПРИМЕЧАНИЯ:
TEMPORARY RESTRICTIONS AND REMARKS:**

Lined area for writing temporary restrictions and remarks.



РОССИЙСКИЙ МОРСКОЙ РЕГИСТР СУДОХОДСТВА

КОПИЯ
СОПУ

1.1.1

СВИДЕТЕЛЬСТВО
О ГОДНОСТИ К ПЛАВАНИЮ

Название судна "MERCURI-2"	Флаг		Азербайджанской Республики	
Регистровый номер 84368I	Номер ИМО 82I2556	Валовая вместимость II450		
Судовладелец Каспийское морское пароходство				
Порт приписки Баку		Тип судна пассажирское/накатное		
Год и место постройки 1984, Югославия		Мощность главных механизмов 8700		кВт

НАСТОЯЩЕЕ СВИДЕТЕЛЬСТВО ВЫДАНО НА ОСНОВАНИИ:

Наименование документа	Номер документа
Идентификационного свидетельства	98.0I88.I40
Мерительного свидетельства	98.0058.I40
Пассажирского свидетельства	-
Международного Свидетельства о грузовой марке	98.0I83.I40
Свидетельства на оборудование и снабжение	-
Свидетельств предусмотренных международными Конвенциями: СОЛАС 74/78 Свидетельство о безопасности пассажирского судна	98.0I8I.I40
МАРПОЛ 73/78 Международное свидетельство о предотвращении загрязнения нефтью	98.0I84.I40
Международное свидетельство о предотвращении загрязнения сточными водами	98.0I85.I40
Свидетельство о предотвращении загрязнения мусором	98.0I86.I40
Свидетельств, предусмотренных Международными Кодексами:	-

Настоящим удостоверяется, что указанное судно в отношении конструкции, оборудования и снабжения годно к плаванию в районе
Ограниченный I

ПРИМЕЧАНИЕ. Свидетельство теряет силу в следующих случаях: по истечении срока его действия; если судно не было предъявлено к освидетельствованию в предусмотренный срок; после аварийного случая, если в порту, где он произошел, или в первом порту, куда зайдет судно после аварийного случая, оно не будет предъявлено к освидетельствованию, после конструктивных изменений, не согласованных с Российским Морским Регистром Судоходства; при нарушении определенного района плавания или загрузке судна выше установленной грузовой марки; при невыполнении условий или указаний, предъявленных Российским Морским Регистром Судоходства.

ПОДТВЕРЖДЕНИЕ СВИДЕТЕЛЬСТВА

На основании освидетельствований, произведённых в порту Брану
30 июля 99, и остающихся в силе указанных выше документов, срок действия настоящего Свидетельства
подтверждается до 26.12.99 ÷ 26.06.2000
(см. акт № 2366.140)

М.П.

Инженер-инспектор



На основании освидетельствований, произведённых в порту _____
« _____ » _____, и остающихся в силе указанных выше документов, срок действия настоящего Свидетельства
подтверждается _____

М.П.

Инженер-инспектор



На основании освидетельствований, произведённых в порту _____
« _____ » _____, и остающихся в силе указанных выше документов, срок действия настоящего Свидетельства
подтверждается _____

М.П.

Инженер-инспектор



На основании освидетельствований, произведённых в порту _____
« _____ » _____, и остающихся в силе указанных выше документов, срок действия настоящего Свидетельства
подтверждается _____

М.П.

Инженер-инспектор



Свидетельство сохраняет силу до «26 марта 2003» при условии ежегодного подтверждения в соответствии

Правилами

срок следующего ежегодного освидетельствования:

26.12.98 г. ÷ 26.06.99 г.

Свидетельство о годности судна произведено в порту Стамбул «09» Июля 1998г.



Российский Морской Регистр Судоходства

[Handwritten signature]
(подпись уполномоченного лица, выдавшего Свидетельство)

№ 98.0180.140

ВРЕМЕННЫЕ ОГРАНИЧЕНИЯ И ПРИМЕЧАНИЯ

В срок к 01.02.99 г. состав радиоборудования привести в соответствие с требованиями Правил ГМССБ.

И.О. ПРЕДСЕДАТЕЛЯ ПРАВЛЕНИЯ

[Handwritten signature]

К.С. КОНОНЕНКО

«ПРОВЕРЕНО»

Главный инженер-инспектор

Ф.И.О.

Подпись

Дата

Завалоних

[Handwritten signature]

21.6.98

К. Смирнов

[Handwritten signature]

02.06.98

Вилков

[Handwritten signature]

08.06.98

ПРОДЛЕНИЕ СВИДЕТЕЛЬСТВА

На основании освидетельствований, произведённых в порту _____

« _____ » _____, и остающихся в силе указанных выше документов, срок действия настоящего Свидетельства
подтверждается _____

Российский Морской Регистр Судоходства



(подпись уполномоченного лица)

м.п.



КОПИЯ
COPY 2.1.11.2

СВИДЕТЕЛЬСТВО
О БЕЗОПАСНОСТИ ПАССАЖИРСКОГО СУДНА
PASSENGER SHIP SAFETY CERTIFICATE

Настоящее Свидетельство должно быть дополнено Перечнем оборудования (форма Р) для любого/короткого международного рейса.
This Certificate shall be supplemented by Record of Equipment (Form P) for an/short international voyage. No. 98-0182-1

Выдано на основании положений Международной конвенции по охране человеческой жизни на море 1974 года, с поправками

по уполномочию Правительства Азербайджанской Республики
Российским Морским Регистром Судоходства (название государства)

Issued under the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended under the authority

of the Government of Azerbaijan Republic
by Russian Maritime Register of Shipping (name of the State)

СВЕДЕНИЯ О СУДНЕ
ARTICULARS OF SHIP

Название судна Name of Ship	Регистровый номер или позывной сигнал Distinctive Number or Letters	Порт приписки Port of Registry	Валовая вместимость Gross Tonnage	Морские районы, на плавании в которых судну выдано Свидетельство (правило IV/2) Sea areas in which ship is certified to operate (regulation IV/2)	Номер ИМО IMO Number
MERKURI-2	4JJA	Баку	II450	-	8212556
MERCURI-2	IMSI 423002100	Baku			

Дата закладки киля или дата, на которую судно находилось в подобной стадии постройки или, где это применимо, дата, на которую началось переоборудование или изменение, или модификация существенного характера
29 сентября 1983

Date on which keel was laid or ship was at a similar stage of construction or, where applicable, date on which work for a conversion or an alteration or modification of a major character was commenced - 29th September 1983

НАСТОЯЩИМ УДОСТОВЕРЯЕТСЯ:
THIS IS TO CERTIFY:

1. Что судно освидетельствовано в соответствии с требованиями правила-1/7 Конвенции.
That the ship has been surveyed in accordance with the requirements of regulation 1/7 of the Convention.
2. Что освидетельствованием установлено, что:
That the survey showed that:
 - 2.1 судно отвечает требованиям Конвенции в отношении:
the ship complied with the requirements of the Convention as regards:
 1. конструкции, главных и вспомогательных механизмов, котлов и иных сосудов под давлением;
the structure, main and auxiliary machinery, boilers and other pressure vessels;
 2. деления на водонепроницаемые отсеки и относящихся к нему устройств и деталей;
the watertight subdivision arrangements and details;

3 следующих грузовых ватерлиний деления на отсеки:
the following subdivision load lines:

Грузовые ватерлинии деления на отсеки, назначенные и нанесенные на борта в средней части судна (правило II-1/13) Subdivision load lines assigned and marked on the ship's side amidships (regulation II-1/13)	Надводный борт Freeboard	Применять, когда помещения, где перевозятся пассажиры, включают следующие помещения, где могут перевозиться либо пассажиры либо грузы. To apply when the spaces in which passengers are carried include the following alternative spaces
C.1	-	-
C.2	328I	-
C.3	-	-

2.2 судно отвечает требованиям Конвенции в отношении конструктивной противопожарной защиты, противопожарных систем и средств и схем противопожарной защиты;
the ship complied with the requirements of the Convention as regards structural fire protection, fire safety systems and appliances and fire control plans;

2.3 спасательные средства и снабжение спасательных шлюпок, спасательных плотов и дежурных шлюпок предусмотрены в соответствии с требованиями Конвенции;
the life-saving appliances and the equipment of lifeboats, liferafts and rescue boats were provided in accordance with the requirements of the Convention;

2.4 судно имеет линеметательное устройство, радиоустановки, используемые в спасательных средствах, в соответствии с требованиями Конвенции;
the ship was provided with a line-throwing appliance and radio installations used in life-saving appliances in accordance with the requirements of the Convention;

2.5 судно отвечает требованиям Конвенции в отношении радиоустановок;
the ship complied with the requirements of the Convention as regards radio installations;

2.6 действие радиоустановок, используемых в спасательных средствах, отвечает требованиям Конвенции;
the functioning of the radio installations used in life-saving appliances complied with the requirements of the Convention;

2.7 судно отвечает требованиям Конвенции в отношении судового навигационного оборудования, средств для посадки лоцманов и навигационных изданий;
the ship complied with the requirements of the Convention as regards shipborne navigational equipment, means of embarkation for pilots and nautical publications;

2.8 судно обеспечено сигнально-отличительными огнями, сигнальными знаками, средствами подачи звуковых сигналов и сигналов бедствия в соответствии с требованиями Конвенции и действующих Международных правил предупреждения столкновений судов в море;
the ship was provided with lights, shapes, means of making sound signals and distress signals in accordance with the requirements of the Convention and the International Regulations for Preventing Collisions at Sea in force;

2.9 во всех других отношениях судно отвечает соответствующим требованиям Конвенции.
in all other respects the ship complied with the relevant requirements of the Convention.

3. Что выдано/не выдано Свидетельство об изъятии. № 99.0533.I40
That an Exemption Certificate has/had not been issued.

Настоящее Свидетельство действительно до 31 ИЮЛЯ 1999
This Certificate is valid until 31 July 1999

Выдано в П. Баку
Issued at p. Baku

(место выдачи Свидетельства)
place of issue of Certificate

30 ИЮНЯ 1999
June 30 1999
(дата выдачи)
(date of issue)

Российский Морской Регистр Судоходства
Russian Maritime Register of Shipping

№ 99.0533.I40



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signature of authorized official issuing the Certificate

ПРОВЕРИТЬ ИЛИ ПЛАТЯЩИЙ ОРГАНИЗАЦИИ,
BEAR OF SHIP OF THE ISSUING AUTHORITY,
AS APPROPRIATE

• Не нужно зачеркнуть
Delete as appropriate

The entire engine room, the electrical equipment and the ECR (engine control room) was covered with an oily film. In case of fire, the flames will climb up the engine room casing. The explanation of the engineer was that there are no detergents, no chemicals, no clothes and no cleaning equipment available.

The bilge was half filled with oily water. The main engines have a lot of leakage at the flanges and other connections, fuel oil drops out everywhere.

During the two hours stay in the engine room there were three alarms. One false alarm about fire and two main-engine alarms about lack of fuel. This seemed to be normal occurrence, the 2. Engineer knocked the fuel regulator by hand and hammer.

The floor of the engine room is naked steel, it is not painted and very slippery. There is an anti slippery off plastic carpet in the walking area.

There were nearly no spare parts. Bolts and nuts are all used. Tools, like screwdriver, pliers and vice are all in the worst possible condition. Screw spanner sets were not complete and some box spanners were not useable under normal conditions. The engine crew had no overalls, no safety shoes, no helmet, no gloves and no hearing protection. They were wearing old private clothes and sandals.

In the cargo hold at the starboard and port sides there were valves for discharging sewage and oily water. These valves were sealed by the port authorities. The captain and the 2. engineer stated, that it is only possible to pump out these liquids via these valves. A look at the pipe plan showed that it is also possible to pump out these liquids via the emergency bilge pumping arrangement.

2.2.4 Summary

This fourteen years old ferry is in a very bad condition. The condition is worse than the condition of MV Mercuri 2. Only the hull outside was painted appropriately. The rust was covered with paint. The decks are not well painted.

The low performance of the vessels of Caspian Shipping Company is caused by various reasons such as: low salary, low motivation of the staff, lack of tools and material, lack of spare parts and lack of management support. The crew was not motivated. They told, that for a monthly salary of 100 up to 120 USD, depending on the number of the trips (for each trip they get a allowance of 15 USD), they will not do their work well. This money is not enough to support the family and for cigarettes. They also complain about insufficient spare parts and the lack of appropriate tools. One engineer gave the following explanation: he had studied 5 years, then served some years in the army. After that he gained 16 years sea experience as engineer and now receives a salary of only 100 to 120 USD.

Only a few passengers visited the restaurant. The restaurant is rented to a private person. Most of the passengers had their own provision and took their meals in the cabins or on deck. In the cabins there were no trash cans. The rest of the meals, paper and plastic waste the passengers threw directly over board. The service for cabins and restaurant was not according to international standard. The cabins were given to the passengers without towels and toilet paper. The table cloths in the restaurant were plastic and dirty.

Concerning this environment the crew did not show any understanding.

During Soviet time the ferry had a passenger capacity of a total of 202 persons. But she transported very often more than five hundred passengers without any additional rescue equipment. The passengers were accommodated like deck passengers.

not have this prescribed equipment. The ferry had a exemption from the GMDSS requirements only until 19 June 2000.

Muster lists and instructions about the handling of lifeboats and life rafts were not publicly displayed. The two synthetic lifeboats have a capacity of 55 persons each. The conditions seemed to be OK, but it as obvious that they were never swung out in the last couple of years. On the sun deck there are eight life rafts, four on each side. They are fabricated in the GDR (German Democratic Republic), no description for handling could be found. Only one raft had a label stating that the next statutory survey shall be on 06/1986. The cranes for these life rafts were not in working conditions. They had no electrical support and the cables were broken. Additionally to the life rafts on the sun deck, there are six life rafts on the boat deck. There were no survey labels and no description for handling.

None of the life buoy self-igniting lights ware in a working condition. There were no working batteries and in most cases no light bulbs. From most of the life belts the covers were broken, meaning that the life belts are not watertight anymore. Partly, there was no name and no homeport on them or they were not readable.

The hydrants, nozzles and fire hoses were nearly all in a bad condition. Most of the rubber gaskets in the hydrants were missing or porous. The handles of the hydrants and the coupling lugs were hardly or not at all moveable.

The fire dampers in the ventilation units were partly not useable. The sieves were damaged or partly covered with paint.

Part of the emergency lighting system was not in working condition. Either there were no sockets or no bulbs or the cables were broken.

The garbage of the galley, restaurants and cabins was not delivered at shore in Turkmenbashi or Baku. When the Consultant boarded ferry in Baku and later in Turkmenbashi again, approximately half a cubic metre of garbage was stored at the stern side of the sun deck. The dedicated plastic garbage containers were clean and not in use. Next morning at sea the garbage was gone. During the daytime this place was filled up again. In the ports there is a possibility to deliver the garbage, but the ship has to pay for the service and, therefore, the garbage was rather dumped illegally at sea.

After putting to sea, the smoke of both exhaust pipes of the main engines was at first black. After approximately five hours the smoke became grey and then nearly clear. This illustrates the bad quality of the fuel and also the necessity of maintenance and adjustment.

2.2.3 Engine room inspection

The engine room was inspected at sea on the trip from Turkmenbashi to Baku on 22 June 2000. The second engineer and two greasers showed the engine room and gave explanations.

The two main engines are B&W / MAN, produced in Yugoslavia. Generators and separators were produced in Germany. The hydraulic system and pumps were produced in Sweden and Denmark. There are many problems, except with the generators and separators produced in Western Germany. Since independence, the vessel has major difficulties obtaining spare parts and many technical problems occurred.

Drill, lathe, cutting, sawing-sharpening machines and shaping device are in bad conditions and there is a lack of auxiliaries.

2.2 Report on finding of the inspection of the MV "Akademik Topchibashev"

2.2.1 General

The Master of the vessel is Captain Babaev, Vahid Alimirza-Ogli. He is holder of the world wide master license but only sailed in the Caspian Sea. He is a calm type, approximately 45 years old and was friendly and helpful. He willingly answered the Consultant's questions, but when asked about details on safety, environment and company policy, he declined to answer. A lot of information for this report was received through observation and discussions with crewmembers.

The Caspian Shipping Company owns seven ferries of this type, six of them are sailing between Baku and Turkmenbashi and the seventh, the Mercuri 2, is sailing between Baku and Aktau.

The MV Academic Topchibashev is a Cargo RoRo-Ferry with only one hold and without any cross- or lengthways bulkheads. For cargo operation the stern door is lifted hydraulically. At sea, this door is secured with four props each at the bottom and on both sides. The rubber seal appeared to be in good order. For cargo operation a shore-based ramp is needed.

The ferry has a capacity of 28 standard rail wagons and 12 passengers. After a fire in the passenger area in 1992, the vessel lost its Passenger Ship Safety Certificate. So the passenger carrying capacity went down from more than 140 to only 12 passengers. The vessel has 84 passenger cabins. The destroyed cabins are restored, but the required classification level and equipment for fire detection was not established again. It appears that the ferry carries regularly more passenger than the permitted 12. For official purposes, only adults passengers are counted, and if they add up to more than 12 adults, the remaining are declared as supernumeraries or as guests. Children are not counted at all. On the trip to Turkmenbashi the Consultant counted 43 adult passengers and on the way back to Baku 60 adult passengers; additionally, on both trips a lot of children were on board.

In recent months, the number of passengers has decreased. The reason appears that since some months Turkmenistan citizens strictly need a special permission from the administration in Ashkhabad to leave the country. Before, it was possible to get this permission for small money at the border.

On the trip from Baku to Turkmenbashi the cargo space was filled with 28 wagons with cement and two reefer trucks with chickens from Poti port to Ashkhabad. On the way back from Turkmenbashi to Baku the hold was also fully loaded with 27 wagons, some empty and some loaded with coke and oil, and five loaded trucks.

The vessel has normally between 42 and 45 crewmembers. The Safe Manning Certificate requires only a crew of 15.

2.2.2 Safety

On the bridge only old equipment was found. The ship had two simple radar units without ARPA.

There was no GMDSS (Global Maritime Distress Safety System) equipment, which is internationally required for SOLAS vessels in the foreign trade since 1 February 1999. The vessel has only a simple Inmarsat C system for telex machine. The wireless operator is still working with the morse key. The two SART units (Search and Rescue Radar Transponder) are on the bridge. The place for the EPIRP on the compass bridge was empty. The radio officer found the Compas Sarsat EPIRB (Emergency Position Indicating Radio Beacon) in the sleeping area of his cabin. The captain assured the Consultant that the nautical officers and the radio officer are all holder of the GOC (General Operator Certificate) for GMDSS, but up to now they do

2.1 Available Certificates

Classification Certificate

Cargo / RoRo

Issued by: Russian Maritime Register of Shipping

Day of issue: Baku, 19 June 1995

Valid until: 19 June 2000

Ship Safety Equipment Certificate (only in Russian language)

Issued by: Russian Maritime Register of Shipping

Day of issue: Baku, 19 June 1995

Valid until: 19 June 2000 with old wire less equipment

Report from 5th October 1999 about Radio equipment survey valid until 19th June 2000

International Tonnage Certificate

Issued by: Russian Maritime Register of Shipping

Day of issue: Baku, 13 January 1999

Valid until: no entry, normally 5 years

2 MV "Academic Topchibashev" - Main particulars

Register No.	842496
No. of Russian Maritime Register of Shipping	
IMO No.	8212570
Type	RoRo Cargo
Port of registry	Baku
Ship owner	Caspian Shipping Company
Year of built	1986
Place of built	Yugoslavia
Shipyard	
Date of which keel was laid	
Flag	Azerbaijan Republic
Call sign	
Minimum number of crew	15 (safe manning), on board 42 to 44
Number of passengers	12
Length / Article 2(8)	147,00 m
Length over all	154,50 m
Breadth	17,50 m
Breadth over all	18,30 m
Depth	13,45 m
Free board	2811 mm
Draught	4,20 m
Gross tonnage	11.450
Net tonnage	3.435
Dead weight	3.985
Wagon capacity	28 standard wagons
Engine:	Internal combustion engine 2 engines, each 5916 kW total power output 8700kW
Class	Russian Maritime of Shipping Cargo / RoRo

Survey Report on the Ferry MV “Akademik Topchibashev” of Caspian Shipping Company

Survey Report on the Ferry “Akademik Topchibashev” of Caspian Shipping Company

- Photos -



Life-belt starboard side, emergency lamp construction without socket and bulb, battery not working



Hydrant, handle cannot be turned



Life boat starboard side, 52 persons, bad condition, but useable



Life rafts boatsdeck, each side 3 life rafts: 2 for 20 and 1 for 12 persons, fabricated in Russia, no plates for check and handling



Ventilation, spindle can be turned, sieve partly painted



Life rafts and crane, portside, each side 4 life rafts, fabricated in the GDR, no description, only one has a label: next check 6/1986



Both life raft cranes are without electrical support, cables are broken, not useable



Both life raft cranes are without electrical support, cables are broken, not useable



Ventilator for passenger cabins, cable broken



Open vizier of the cargo hold



Smoke of the exhaust pipes from the funnels



Life-belt, without name and homeport, cover broken and not watertight, light without battery, socket and bulb

Visit to the tanker MT “General Heydarov” of Caspian Shipping Company

3 Tanker MT "General Heydarov" - Main particulars

Register No.	802287
IMO No.	8033833
Type	Oil Tanker
Port of registry	Baku
Ship owner	Caspian Shipping Company
Year of built	1982
Place of built	
Shipyard	
Date of which keel was laid	
Flag	Azerbaijan Republic
Call sign	
Minimum number of crew	on board 22
Number of passengers	
Length / Article 2(8)	
Length over all	124,97 m
Breadth	124,97 m
Breadth over all	18,30 m
Depth	
Free board	
Draught	4,15 m
Gross tonnage (old measurements GRT)	4.136,02
Net tonnage (old measurements NRT)	1.763,06
Dead weight	4987
Total capacity of cargo tanks	5903 m ³ / 4600 t
Engine:	3000 hp
Class	Russian Maritime of Shipping Oil Tanker

The Russian Maritime Register of Shipping in Azerbaijan revoke the Class Certificate of this tanker on the 08th of December 1999. On 5 June 2000, 183 vessels of the Azerbaijan fleet – in total 581 vessels- had lost the class certificate.

A lot of information for this report was received through observation and talks with some crew members. A lot of questions were answered, but when asked about details on safety, environment and company policy, no answers were given.

At present, Dubendi is only used for discharging, not for loading.

The Caspian Shipping Company owns 17 tankers of this type. In former times, the company owned 21 tankers of this type. Usually, these tankers are sailing between Aktau and Baku, only occasionally they sail between Turkmenbashi and Baku, too.

The capacity of these tankers is only 4,600 t with a range of 4,000 nm and a speed of 12.3 kn.

The vessel has usually between 22 and 24 crewmembers. On the bridge only old equipment was found. There were two simple radar units, but no ARPA.

There was no GMDSS (Global Maritime Distress Safety System) equipment, which is internationally compulsory for SOLAS vessels in the foreign trade since 1 February 1999. The radio officer is still working with the morse key and radio telephone.

Muster lists and instructions about handling the of lifeboats and life rafts were not publicly displayed. The two metal lifeboats have a capacity of 55 persons each. Their conditions seemed to be OK, but they were obviously not swung out in the last years. Most of the life buoys' self-igniting lights were not working. There were no working batteries and in most cases no bulbs. From most life-belts the covers were broken, which indicates that they are not watertight anymore. Sometimes there was no name and no homeport or they were not readable.

The hydrants, nozzles and fire hoses were nearly all in bad condition., but the fire hose boxes were all filled well. The fire extinguishers had no remarks about last/next check. Most of the rubber gaskets in the hydrants are missing or porous. The handles of the hydrants and the coupling lugs were hardly or not at all moveable. The two monitors (turret nozzles) of the mechanical foam system in front of the bridge were not useable. Neither was there shore based fire fighting equipment at the pier.

The fire dampers in the ventilation units were partly not useable. The sieves were damaged or partly covered with paint. The garbage of the galley and cabins was stored in the open at the stern of the vessel and not delivered to the empty garbage boxes at the pier.

As entered the tanker was boarded by the Consultants, the arms were already disconnected after discharging. But there were no emergency fire wires for towing the vessel off the pier and no bonding wire for earthening. Neither could insulation flanges be found at the discharging arms at the pier. The crew did not had any anti-static safety shoes, no working gloves and no tight working clothes.

Summary

This 28 years old tanker is in a very bad condition. The hull, decks and accommodation are not well painted. The rust was covered with paint.

On this vessel the same explanations for low performance of the crew and bad condition of the ship as on the other vessels were given.

Concerning responsibility, safety and the environment the crew did not show any understanding.

Judged at international standards this vessel is “unseaworthy” and should never be allowed to sail before major improvements to the safety and fire fighting equipment as well as to the operating procedures are completed.

Survey Report on the Tanker “General Heydarov” of Caspian Shipping Company

- Photos -



View to pier 1 with 2 tankers, "Shamkhor", 7807 GRT and "General Heydarov", 4134 GRT



View to pier 1 with 2 tankers, "Shamkhor", 7807 GRT and "General Heydarov", 4134 GRT



Oil boom, in stand-by position, not around discharging tankers



View to tanker "General Heydarov", 4987 t



View to pipeline system on pier 1



Empty garbage boxes on pier 1



View to tanker " General Heydarov", 4987 t,
with disconnected arms



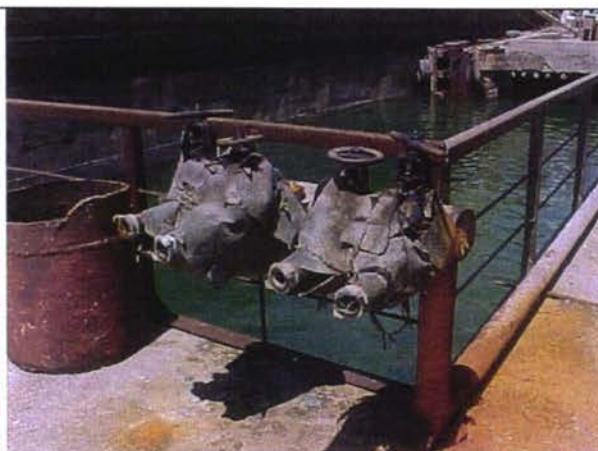
Manifold of tanker " General Heydarov", 4987t,
arm disconnected



Port boat of tanker " General Heydarov", with
cooling equipment



Broken concrete pile of pier 1 and fender
system



Fire fighting system on pier 1, no water supply,
seals partly broken or off, valves can be
turned, hoses and nozzles not available



Tank system for fire fighting foam on pier 1