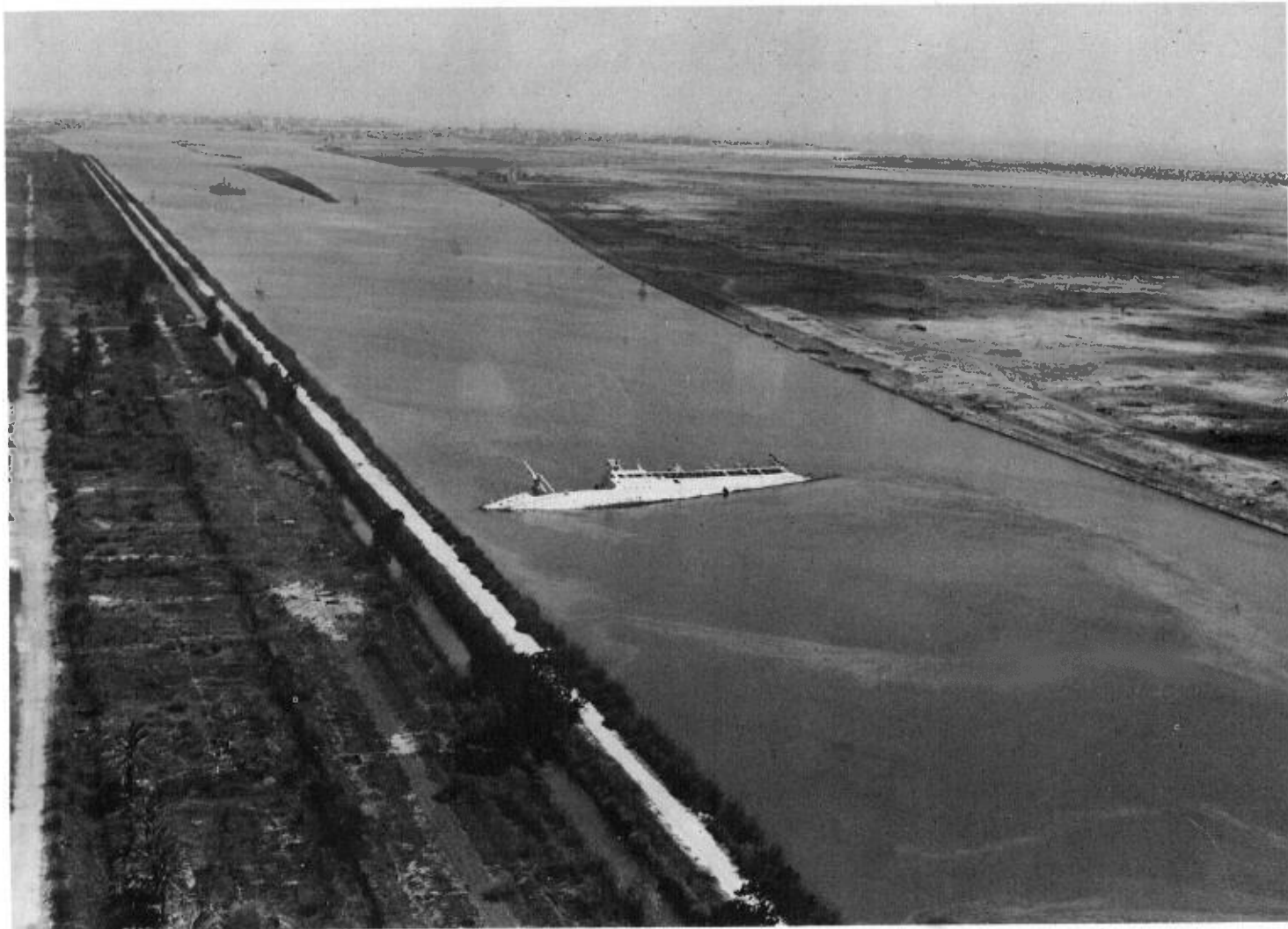




SUEZ CANAL CLEARANCE
OPERATION REEOSTAT 1974



A small part of the waterway that was to become very familiar

Editor's Note

I am indebted to The Plessey Co. Ltd, the Ben Line Steamers, Kelvin Hughes, Ruston Paxman Diesels Ltd, Ferranti, and Siebe Gorman for their most generous donations towards the cost of producing this book; the Directorate of Public Relations (Royal Navy) for providing most of the photographs; the United States Navy Public Affairs Department; my sister Liz for typing the manuscript; Herbert Rees for his invaluable advice and assistance in reading the proofs; the various contributors named in this book; and many other unnamed helpers.

In this short book I have not attempted to set forth the whole of Operation RHEOSTAT; that would have needed a volume much bigger and more detailed. Instead I have tried to highlight some of the more significant and memorable aspects of the Operation as I saw them.

James C. Rapp

Suez Canal Clearance

Operation RHEOSTAT

April—November
1974

A tale of the
experiences of
Task Group 65.2:
Her Majesty's Ships

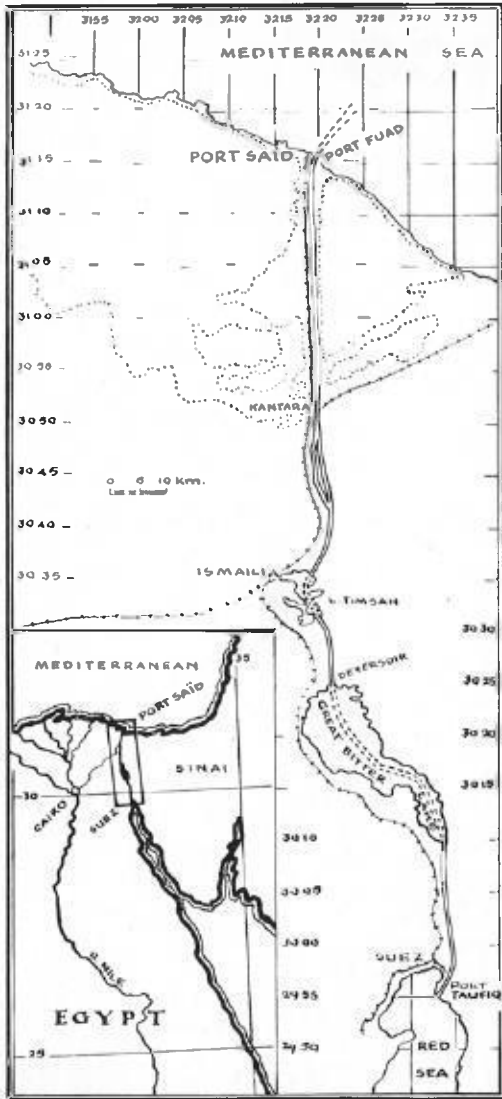
ABDIEL

BOSSINGTON

MAXTON

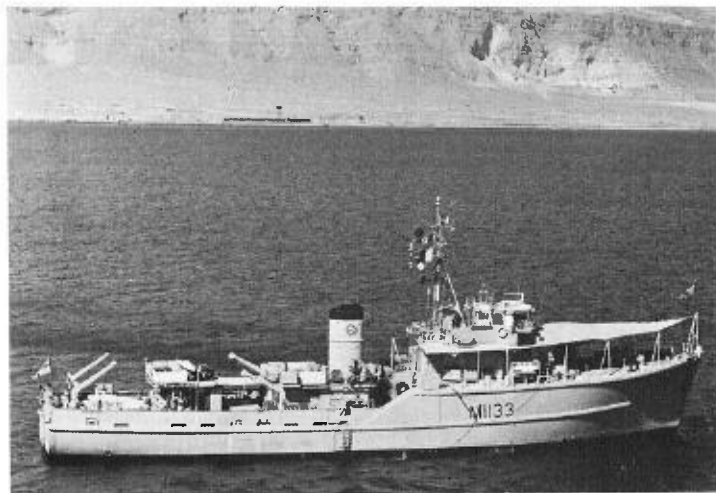
WILTON

and the ***FLEET CLEARANCE DIVING TEAM***



▲ *ABDIEL* enters Alexandria

WILTON, seen just north of Deversoir, ►
returns to Ismailia from Suez Bay



▲ BOSSINGTON in Suez Bay

(United States Navy Photograph)



▼ MAXTON manoeuvres in the Canal



The Fleet Clearance Diving Team on ►
the wreck MECCA



Foreword



I am sure that anytime the Royal Navy men who took part in Operation RHEOSTAT/NIMBUS MOON look back on their time in Egypt, they will do so with pride.

It has been a great pleasure for me personally to have had the opportunity to work closely with the officers and men of HMS *Abdiel*, *Bossington*, *Maxton* and *Wilton*, and the Fleet Clearance Diving Team.

The Royal Navy has a tradition of bringing a high degree of professionalism and drive into any operation. This was continually evident throughout our combined Suez Canal efforts.

I wish to express my extreme appreciation to all of you for your truly outstanding performance with Task Force 65.

Respectfully,

A handwritten signature in black ink, which appears to read "K. J. Carroll". The signature is written in a cursive, flowing style.

K. J. CARROLL
Rear Admiral, US Navy
COMMANDER TASK FORCE 65

Our Competitors

The Americans

USS *IWO JIMA* 21 April–13 May
USS *INCHON* 13 May–4 June

USS *BARNSTABLE COUNTY* 10 June–9 October
USS *BOULDER* 9 October onwards



▲ USS *IWO JIMA* at anchor off Port Said



▲ USS *BARNSTABLE COUNTY* at anchor in Lake Timsah
(C & S Taylor)

The French

During Operation RHEOSTAT the following ships joined us for various periods:—

FS *ACANTHE*
FS *GIROFLEE*

FS *GARDENIA*
FS *LILAS*
FS *AJONC*

FS *ACANTHE* enters Lake Timsah ►



A Brief History of the Suez Canal

by

Surg. Lt. Cdr. C. W. Evans

The early history of the Red Sea Canal is confused and uncertain. Ideas are based on the interpretation of pictures and engravings, and different observers will often reach different conclusions. Probably in early times the Red Sea and the Mediterranean met where the Isthmus of Suez now lies. The country on either side was then very different. Rain fell and the vast areas of what is now desert were grassy plains.

By 2000 B.C. the land had risen and the seas were divided. Lake Timsah and the Bitter Lakes were still part of the Red Sea but between the sites of the modern towns of Ismailia and El Kantara there was dry land. The Nile in those days had seven branches and the most easterly, the Pelusiac branch, passed within thirty miles of Ismailia on its way to the sea near El Kantara. The first canal linking the Mediterranean and the Red Sea ran from what is now Lake Timsah to this branch of the Nile near the present-day town of Zagazig.

This canal existed from 2000 B.C. until the Persian conquest. It saw the arrival of the Children of Israel in Egypt after famine had driven them from their own lands. It saw their rise to power, probably during the time of the Pharaohs Ikhnoton and Tutankhamon, and it saw their enslavement under Rameses II and the Exodus either during the reign of Rameses II or his son Merneptah.

Where Moses led his tribe across the Red Sea is not known but perhaps they crossed between Suez and Ismailia helped by strong winds and spring tides. The Pharaoh who lost his army when the sea returned was not the last Egyptian leader to suffer a reverse at the hands of the Israelites.

In 510 B.C. the Persians conquered Egypt, and Darius I repaired the canal of the Pharaohs. The Bitter Lakes were becoming separated from the Red Sea by this time owing to the rising of the land, and communication with the Red Sea was only possible during the Nile flood.

In 333 B.C. Alexander conquered Egypt and in 288 B.C. Ptolemy II redug the Persian Canal and dug a new section linking the Bitter Lakes to the Red Sea.

In 30 B.C. the Romans came to power in Egypt and in A.D. 98 the Canal, which had fallen into disuse owing to the drying up of the Pelusiac branch of the Nile, was revived, redug and extended to Cairo. This Canal existed until the end of the eighth century when it was filled in and the Mediterranean and the Red Sea were separated for eleven centuries. Lake Timsah dried up, existing only as a dry depression, and the water level in the Bitter Lakes was much lower than it is today.

The building of the Suez Canal by de Lesseps between 1859 and 1869 was an enormous undertaking. Before any work could begin a fresh-water canal from Cairo to Ismailia had to be built to provide water for the work force, and this took from 1856 to 1859. The de Lesseps Canal was only 60 metres wide and 6.5 metres deep but much of the work had to be done by hand and 120,000 men died building it. The Canal was then run successfully under British and French control, attracting a growing volume of trade and being enlarged on various occasions until by

1956 nearly all of it was 200 metres wide at water level and 11.3 metres deep. The Egyptians have since widened a few sections and dredged it to 38 feet.

In 1956 President Nasser nationalised the Canal, the Israelis invaded Egypt, the Canal was blocked with a number of sunken ships and the French and British invaded to protect their interests in the Canal Zone. The Canal was re-opened in 1957 and ran successfully under Egyptian control for ten years. In 1967 during the June War the Canal was again blocked by the Egyptians with twelve ships, and fourteen ships were trapped in the Bitter Lakes. The Israelis occupied Sinai and the East Bank of the Canal.

During the seven years up to October 1973 a vast quantity of ordnance was dropped or deliberately placed in and around the Canal and most of the equipment and installations were damaged or destroyed. The cities and towns of the Canal Zone were bombed and shelled, the civilian population left and the whole area came under military control.

On 6 October 1973 the Egyptians launched attacks across the Canal at five main points between El Kantara and Suez. The first Egyptians across the Canal were commandos who successfully destroyed the Israeli napalm-spreading devices and captured bridgeheads on the East Bank. Water cannon were then used to cut gaps in the steep sand-walls of the Canal. Eventually twelve pontoon bridges and some fifty ferries were carrying men and equipment to the East Bank.

On 15 October the Israelis began their counter-attack across the Canal. Once their tanks had established a bridgehead at Deversoir, other Israeli units crossed and



Royal Naval ships in Port Said during the crisis 1956 ▲

within three days they had built a causeway across the Canal. The Israeli forces turned south to Suez and north to Ismailia cutting off the Third Army on the East Bank and capturing or destroying the surface-to-air missile sites on the West Bank that had caused such losses to the Israeli Air Force.

After fifteen days of fighting, a ceasefire was called on 22 October and the Israelis later withdrew into Sinai. With a thin buffer zone established and patrolled by a United Nations Emergency Force, Egyptian troops were again able to return to the Canal's East Bank. The international clearance operation in the Suez Canal started in 1974 in this uneasy state of peace.

Calendar of Events

It was a long hot summer . . .

MARCH

- 19 *Wilton, Bossington* sailed from Portland
 - 20 *Abdiel, Maxton* sailed from Rosyth
 - 22-23 *Abdiel, Maxton* called at Portsmouth
 - 23-29 *Wilton, Bossington* at Gibraltar
 - 27-29 *Abdiel, Maxton* at Gibraltar
- RN Task Group assembled

APRIL

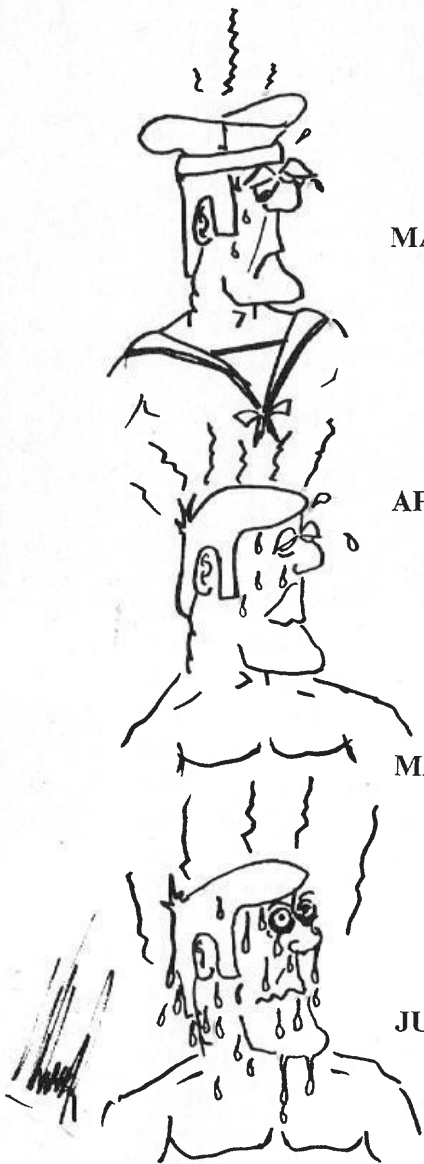
- 3-4 Task Group called at Malta
- 7 Task Group arrived at Port Said
- 8-29 Search of approaches to Port Said and Port Said harbour by minehunters
- 11 Fleet Clearance Diving Team (FCDT) arrived in Cairo
- 21 *USS Iwo Jima*, with AMCM helicopters embarked, arrived off Port Said
- 23-28 *Maxton, Bossington* visited Cyprus

MAY

- 1 RN minehunting and diving operations commenced in the Canal
 - 13 *USS Inchon* relieved *USS Iwo Jima*
 - 24 *Wilton* reached Ismailia
 - 29 *Abdiel* transitted south to Ismailia
- Task Group commenced operations from Ismailia
Murphy Pacific started removal of wrecks (Operation NIMROD SPAR)

JUNE

- 1-6 *Wilton* visited Cyprus
- 3 US AMCM operations completed (end of Operation NIMBUS STAR)
- 4 *USS Inchon* departed



- June (cont.)**
- 8-13 *Maxton* visited Cyprus
 - 13 Royal Fleet Auxiliary *Bacchus* called at Port Said—first merchant ship to enter the port since 1967
 - 14 French Task Group of two minesweepers arrived at Port Said
 - 14-19 *Bossington* visited Cyprus
 - 21 French started diving operations
 - 25 *Bossington* first ship to pass through Deversoir Causeway and enter Great Bitter Lake
- JULY**
- 14 *Maxton* completed first transit of Canal to the south and commenced operations in Suez Bay
 - 22 Operation NIMBUS MOON (land) completed
 - 24-30 *Abdiel, Wilton* visited Malta
 - 31-August 6 *Maxton* visited Malta
- AUGUST**
- 7-13 *Bossington* visited Malta
- SEPTEMBER**
- 7 FCDT departed from Cairo
 - 17-24 *Abdiel, Wilton* visited Malta
 - 24-October 1 *Maxton* visited Malta
 - 28-October 15 Maintenance periods at Port Said
- OCTOBER**
- 1 *Bossington* departed from Port Said to pay off at Gibraltar
 - 15-31 Task Group operated from Ismailia
- NOVEMBER**
- 1 Operation RHEOSTAT completed. *Abdiel, Maxton, Wilton* departed from Ismailia
 - 3-7 *Abdiel, Maxton, Wilton* visited Alexandria
 - 21 *Abdiel, Maxton, Wilton* returned to Portsmouth
 - Task Group 65.2 disbanded

Task Group 65.2 Enters Port Said

Our arrival made headlines in *Al Ahram*, Egypt's principal newspaper:

in English:

THE CANAL CLEARANCE WILL START THIS WEEK TO PREPARE THE CANAL FOR INTERNATIONAL NAVIGATION WITHIN A YEAR

The British minehunters enter Port Said to work with the American helicopters on the mapping of the Canal bed

In the British Press

- 'Clearing the ammunition dump that used to be the Suez Canal' *The Times*
- 'Death and danger lurk as Suez is made ready for shipping' *Morning Star*
- 'Operation Deathtrap' *Daily Express*
- 'The most explosive catch of them all' *The Sun*
- 'Surgery on Suez' *Daily Telegraph Magazine*
- 'You need a sense of humour for this job' *Reuter*

دار « الأهرام »
القاهرة : شارع الجلاء ت ٤٦٦٤
الاستوديو : ١٠ طريق الزعيم
جمال عبد الناصر ت ٨٠٥٠٠٠
المنوان الظفراني : الأهرام بالقاهرة

٢٠
مليما

أهرة : دار « الأهرام » شارع الجلاء
بوتة : دار « الأهرام » ١٠ طريق الزعيم جمال عبد الناصر
مة جنهيات مصرية لسنة كاملة
إشبا لسنة أشهر — ١٧٥ قرشاً لثلاثة أشهر
مصاريف البريد بالنسبة للاشتراكات الخارجية

راحة العالمية خلال عام
كيفية رسم خريطة قاع القناة

The Daily Telegraph, Tuesday, June 6, 1974 15

Clearing Suez: a long, hot summer ahead

BY OCTOBER, or Christmas at the latest, the Royal Navy's three mine-hunters should have completed their task of searching the 108 miles of the Suez Canal for explosives. This is one of the strangest jobs the world has ever seen.

DESMOND WETTERN on how the Navy is going about one of its strangest peace-time jobs

pleted their task of destroying mines in the Canal on June 2 and whether Washington would be prepared to fund further operations.

started. The plant in the third mine-hunter, Wilton, had broken down and, about only last year, the

Royal Navy back in Port Said to help clear Canal

By NABILA MEGALLI in Cairo

THE Royal Navy is back in Port Said. Four ships are there to help clear the Suez Canal.

They were given a hearty welcome—a sharp contrast with 1956, when an Anglo-French force attacked Port

الاعلانات]
الاشتراكات]



أسس الأهرام سنة ١٨٧٥ : سليم وبشارة تقلا
رئيس مجلس الإدارة : محمد عبد القادر حاتم
رئيس التحرير : على أمين
صفحات ٨
السنة - ١٠٠ - العدد ٢١٨٩٥

الاثنين
٨ ابريل (نيسان) ١٩٧٤
١٥ ربيع اول ١٣٩٤
٣٠ برمهات ١٦٦٠
8 AVRIL 1974
Al-Ahram

تطهير القناة يبدأ بعد أسبوع لتكون جاهزة للم الكاسحات البريطانية تدخل بورسعيد لتبدأ مع الهليكوبتر الأمر

BOSSINGTON comes alongside at Port Said. The Suez Canal Authority building is in the background ▼



Port Said—A liberty capital?! ▶



Operation Rheostat

The arrival of Task Group 65.2 at Port Said was in a very different context to the last Royal Naval entry. Whereas in 1956 Britain (and France) had been attempting to seize the Suez Canal, our Task Group entered to offer assistance to Egypt. The Egyptians' welcome was warm; at once it was apparent that the friendship fostered in bygone days was still very strong. We were greatly respected by everyone we met, and the Suez Canal Authority (SCA) made great efforts to give us all we required.

The early days, however, proved to be very frustrating. The disciplined and punctual approach to life fostered in the Royal Navy differs widely from an Egyptian's outlook, in which time is no object. Many of us found this hard to accept, especially after so much effort had been made to ensure that the Task Group reached Port Said as quickly as was humanly possible. As time wore on, we did come closer to understanding the Egyptian viewpoint, but throughout the Operation there were many trials. Our worst headache of all was caused by the unbelievable complications that always accompanied requests for pontoon bridges to open to permit passage for ships of the Task Group. A whole book could be written on this subject alone.

When the helicopter-carrier USS *Iwo Jima* arrived on 21 April the minehunters were hard at work searching Port Said harbour and its approaches. Entry into the Canal proper was delayed until 1 May to allow the Americans to commence their airborne sweep for magnetic and acoustic

mines. The initial plan was for the minehunters to search the whole width of the Canal to three metres depth on either bank and for the Fleet Clearance Diving Team (FCDT), following behind with Egyptian divers, to detonate any explosives found. The minehunter's sonar, however, proved ineffective when used to search the area close to the banks. Thus the FCDT and Egyptian divers, operating independently, completed a search of both banks to between three and eight metres depth while the minehunters searched only to eight metres.

The minehunters remained on task for four to eight days at a time. Working a twelve-hour day from dawn till dusk, everyone stayed closed up at minehunting stations with only short breaks for meals and perhaps 'hands to bathe'.

BOSSINGTON's divers detonate a 500-lb bomb ▼



The six clearance divers borne in each ship were always in the limelight—they carried out a dangerous job superbly. Nevertheless in less glamorous ways everyone was important and deserves praise. With the temperature regularly over 100°F., conditions were most unpleasant. Great perseverance, determination and dedication were required to overcome the boredom and monotony of doing the same job for so long in the same desolate environment.

On 29 May, when *Abdiel* transitted south to go to specially laid buoys in Lake Timsah, she became the first ship of her size to reach Ismailia since 1967. *Wilton* had arrived there five days earlier. Ismailia's position half-way down the Canal made it easier for *Abdiel* to continue giving the essential support and maintenance required by the advancing minehunters. *Abdiel* sent regular supplies by road to the minehunters on task, attempting to meet their essential needs and to provide fresh food. On many occasions the rating accompanying the transport encoun-



tered the most unlikely situations, such as, we felt, could only have happened in Egypt.

Mention must be made of the support party of maintainers borne in *Abdiel*. These men helped keep the ships running efficiently with the minimum of defects. On no other occasion have minehunters operated away from base for so long.

Recreation within the Canal Zone was very limited and only on our departure was Port Said starting to liven up. Before the 1967 war the town had a population of over 300,000, but when we arrived the place was almost deserted. Only two hotels and a single restaurant were open; apart from a few bars, we had nowhere to go. Perhaps that was fortunate because initially leave ended at 1800 daily. Ismailia had even less to offer; consequently few went ashore for anything other than sport or to enjoy the generous hospitality of the Canadian United Nations contingent. Chief PTI Evans ran several sports leagues for *Abdiel's* ship's company, while his namesake, Lt Cdr Evans, devised three highly successful games of 'It's a Cock Up', based on television's 'It's a Knock Out'. Sailing was always popular and by September we had no less than five dinghies to our name. Most people went to Cairo on trips organised by the SCA—we just *had* to see the Pyramids! The SCA staged various oriental shows for us, but to most European eyes one belly-dancer is much the same as the next.

Owing to the lack of recreation all the ships of the Task Group enjoyed visits away from the Canal Zone. Before the Cyprus crisis occurred these were to Famagusta, and afterwards to Malta. Fortunately the Cyprus crisis had little effect otherwise on the Operations, although on a

couple of occasions the RAF resupply flights from Akrotiri failed to arrive. This caused problems in *Abdiel* owing to her limited refrigerated storage space.

Our part of the Anglo-French-American-Egyptian operation in the Suez Canal attracted enormous interest from all corners of the world and, in the first ten days alone, no less than two hundred journalists visited us. The Middle East press was for ever present. Once a hundred journalists arrived for a demonstration when only forty had been expected. On such occasions there was never any lack of 'naval spokesmen'; many previously hidden talents were revealed in front of microphone or camera.

Operation RHEOSTAT continued relentlessly throughout the summer. On 25 June *Bossington* became the first ship to pass through the then partially breached causeway at Deversoir. Operations in the Bitter Lakes were completed sooner than expected, apart from areas of water which were found to be even more saline than the Dead Sea. On 14 July *Maxton* completed the first full passage of the

Canal since 1967 and started searching the large anchorages in Suez Bay. While operating in Suez Bay in September, *Bossington* had a surprise when the ship's sonar guided her divers to an uncharted wreck. This proved to be the *Misr*, an ex-RN Flower-class corvette, sold to Egypt after the Second World War. The *Misr* had sunk after a collision in 1953. The FCDDT returned to UK on 7 September and *Bossington* departed on 1 October to pay off for refit at Gibraltar. Many other events might be mentioned, but space precludes them.

After numerous farewells and thankyou's from the SCA and the Egyptian Navy, we left Ismailia on 1 November to spend four days in Alexandria, the first visit by the Royal Navy for sixteen years.

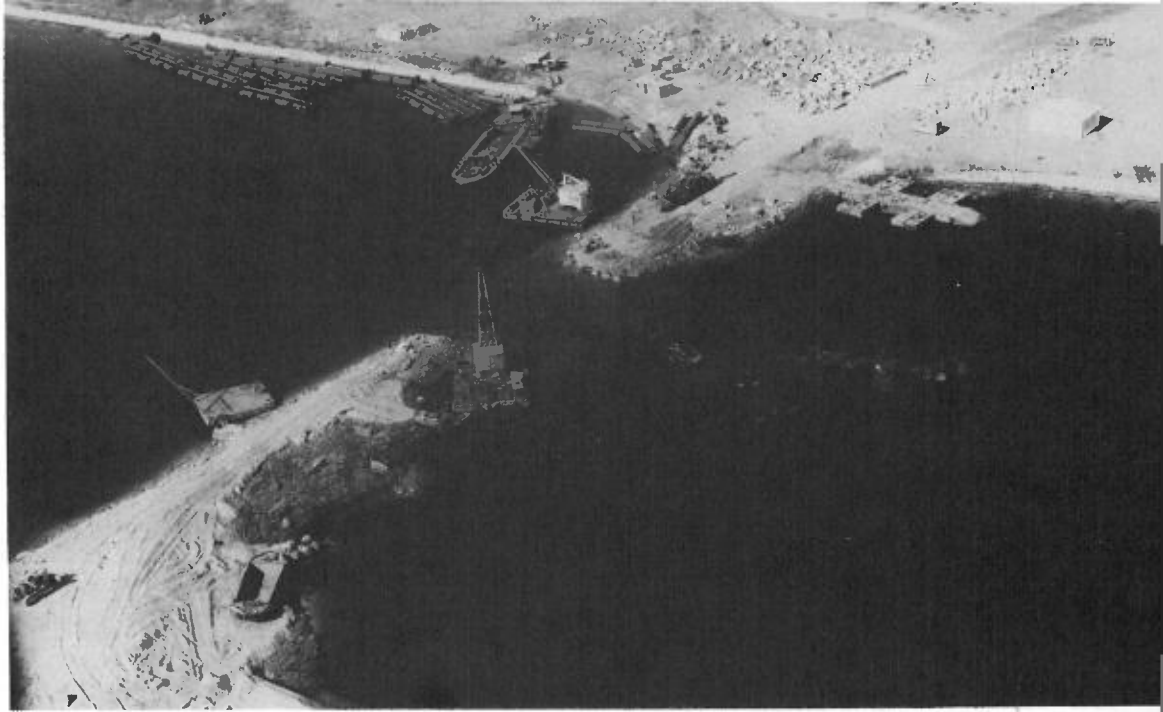
While far away from home and in a rather unpleasant environment, we often failed to appreciate the value of our task. Nevertheless no one will ever forget his time in Egypt. The Task Group's send-off from Port Said was very moving; the Egyptians appeared extremely sad to see us go.

Passage through the Canal

We had to negotiate several obstacles . .

Deversoir

Built by the Israelis in the October War of 1973, this causeway formed a four-lane highway between Sinai and the West Bank ►



MECCA

Largest of the nine wrecks in the Canal ►



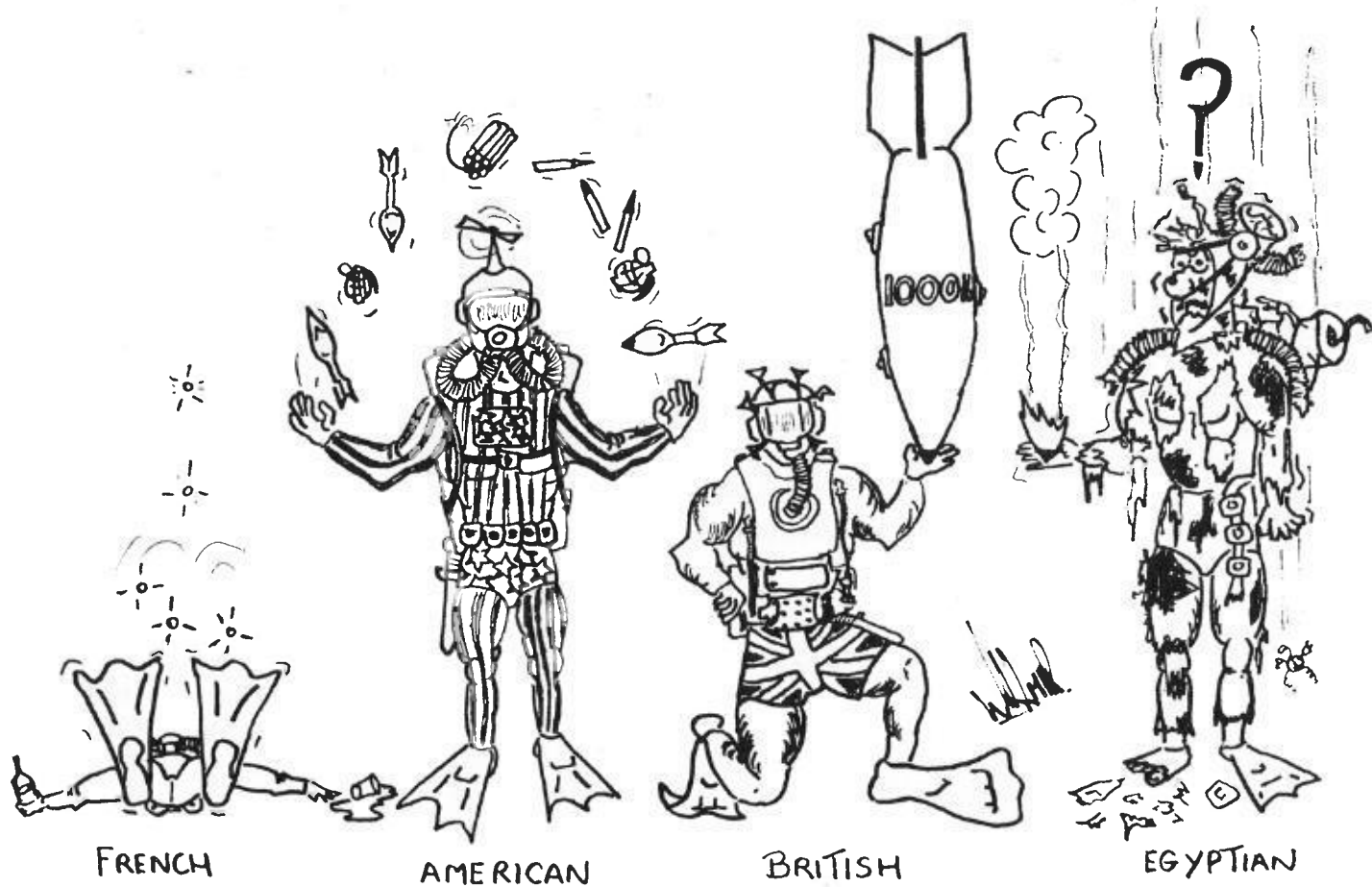
Suez Sayings

EGYPTIAN	BRITISH
Maalesh	It doesn't really matter
Yimkin	Maybe, perhaps
Imshallah	If Allah wishes (he usually doesn't)
It will be here after ten minutes	It will be here in about two hours time—but during Ramadan or on a Friday, it won't come at all
It will come today	It may be here tomorrow or the next day
Tomorrow	Next week
After tomorrow	Never
It is in Cairo	There is none available
Hello Mista!	I am an intellectual, I know two English words
What is the time?	I am an English linguist, I know more than two English words

For a while we tried, unsuccessfully, to conform to the Islamic week



Each nation's divers used rather different methods!



Diving from the NADA

by

Lt. Cdr. R. W. White MBE

Bob White, at 31, looks a hard man, with a stocky physique, closely cropped sandy hair, and the powerful hands of a bar-room brawler. And he has been picked for one of the most dangerous jobs in the world'.
Daily Express (13 April 1974)

The Fleet Clearance Diving Team arrived in Port Said on Thursday 11 April, having flown into Cairo airport in two RAF Hercules aircraft together with lorry and two landrovers. Accommodated in the Casino El Ghazl Hotel, which had been partly refurbished to look after the team and various American personnel, the first three weeks were spent searching the harbour basins in Port Said.

The eventual employment of the Fleet Team in the Canal was to search between 3 metres and 8 metres depth as it was discovered that the minehunters' sonar could not 'see' this area. Using between three and six men on a swimline, the numbers depending on visibility, we started down the West Bank, leaving the East Bank to the Egyptians. However, we ended up swimming from Port Said to Suez down the West Bank before returning northwards up the East Bank. In addition we searched around the harbour basins in Port Taufiq, the Oil Basin at Suez and the Egyptian Naval Base at Adabiya.

We faced the problems of barbed wire in the Canal, strong tides south of the Bitter Lakes, non-opening of pontoon bridges, the apparent lack of communication



Yet another item found ▲
between the Suez Canal Authority and the Egyptian Army, and the ever-present heat, flies and mosquitoes. Besides this, lack of information as to what we would find in the Canal meant that almost every day we were faced with some new and unfamiliar piece of ordnance. Using a cycle of eight days on task followed by two days off, we lived aboard the Suez Canal Authority launch *Nada* and worked from this and a smaller pilot boat, Launch 1042. The *Nada* was run by Captain Mohammed and his three-man Egyptian crew. We suffered from flies by day, mosquitoes by night, and heat all the time. *Nada's* generators were of the type 'please don't run us too long too often'; when we did, they stopped. Consequently, the refrigerator contained warm beer (dreadful stuff!) for much of the time. For



▲ Some of the FCDT return to the *NADA*

cooking we used calor gas; the initial problem was that the empty gas cylinder usually had to be returned before a refill could be obtained so if we ran out whilst on task—maalesh!* All members of the team took to cooking; it is said that no diver on course will pass for Clearance Diver (Second Class) unless he can keep the Clearance Diver (First Class) Instructor well fed—and all members indeed showed their ingenuity with limited and primitive facilities.

Some members of the team were relieved in July by others from UK, and our part of Operation RHEOSTAT finally came to a close on 31 August. Having been entertained by the Suez Canal Authority in a night-club in Cairo, we flew home on 7 September.

The task was an interesting and rewarding one but the

* See 'Suez Sayings' Page 18

conditions under which we dived and worked undoubtedly tested our sense of humour. *Abdiel* looked after us in every way possible and it was always nice to return to a good shower and a good meal.

What did we achieve? As well as finding an aircraft, a personnel-carrier and several lorries, we located and destroyed a total of 7,043 explosive items, ranging from .22 bullets to 1,000-lb bombs; we swam 303 kilometres, we saw the Pyramids, and we sincerely hope that war does not break out again so that we shall have to start all over again.



"G SEE OUR SLOZNOFF MK1 GROUND MINE
WENT DOWN WELL WITH THE BRITISH SIR."
"G THINK THEY CALL IT AN OIL DRUM?"

Rear Admiral D. Loram MVO enjoys a joke on board *WILTON* ▼



Flag Officer
Malta

Sir Philip Adams KCMG enjoys ▶
a drink with the FCDT on board
the *NADA*



Captain Mine
Countermeasures



Captain J Tomlinson meets *ABDIEL's* ▲
Master-at-Arms

Visitors to Task Group 65.2

Rear Admiral J D Roberts talks to the
Captain of *MAXTON* ▼



Chief of Staff
to
Commander-in-
Chief Fleet

Foreign Military
Attachés

British
Ambassador to
Egypt

—and many,
many others!



▲ Gathered at Ismailia

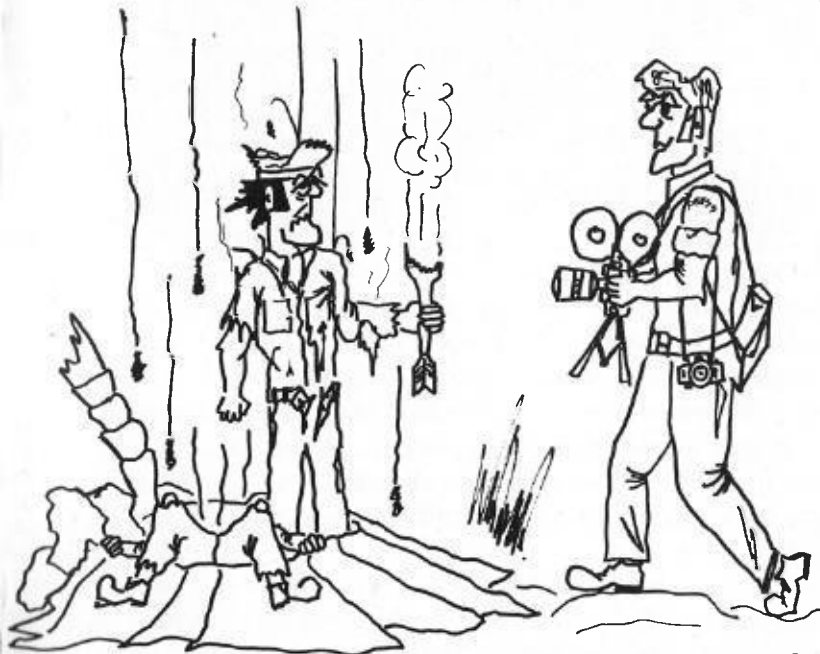
The International Press

—they seldom left us alone!

Port Said



On the Task Group's arrival ▶



"I WONDER IF YOU COULD DO THAT AGAIN,
TAKE IT FROM!"



Ismailia

◀ After *ABDIEL*'s transit south on 29 May

—and even on task:

Another television interview for Lt Cdr Bob White ▶



United States and French Clearance Operations

Operation NIMBUS STAR, the American airborne mine countermeasures (AMCM) sweep of the Suez Canal and off-lying waters commenced on 21 April 1974 when the USS *Iwo Jima* with an AMCM squadron of giant CH-53 Sea Stallion helicopters embarked, arrived off Port Said to anchor six miles offshore. Over the next thirty-nine days, this squadron, operating throughout the daylight hours from hastily prepared sites at Port Said, Ismailia, Deversoir and Adabiya, was to conduct a sweep of the entire length of the Canal, including the Bitter Lakes and sizeable areas of Suez Bay.

The AMCM helicopters swept for magnetic and acoustic mines by towing a large magnetic hydrofoil minesweeping device, normally called a 'sled', along the centre of the Canal.

At the same time Ismailia airfield, once RAF Ismailia, was being made serviceable again. This enabled the base of the AMCM operations to be moved there from the USS *Iwo Jima*, and USAF C-130 resupply flights were soon to be seen arriving regularly with replacement supplies and equipment. A comprehensive airborne search-and-rescue and logistic service was provided throughout NIMBUS STAR by US Marine CH-46 Chinook helicopters embarked first in the USS *Iwo Jima* and latterly in the USS *Inchon*.

Operation NIMBUS STAR, under the overall command of



▲ A Sea Stallion helicopter tows her 'sled'

Rear Admiral Brian McCauley, USN, Commander Task Force 65*, achieved an AMCM sweep of 110 square miles of water in 514 airborne hours covering 7,500 linear miles in all. It was executed in a glare of publicity and, although no magnetic or acoustic mines were found anywhere in the Canal, the efficiency and smoothness of the Operation was impressive; it boosted United States prestige in Egypt considerably.

American personnel also took part in the far more lengthy Operation NIMBUS MOON, which was the American code name for the joint effort by Britain, Egypt, the United States and later France to clear the Canal and its banks of unexploded ordnance. In NIMBUS MOON (water) the Americans acted as advisers and teachers to the Egyptian Diving Forces; on completion of training, the

* Relieved on 3 June 1974 by Admiral K. J. Carroll

Egyptian teams carried out recovery and disposal of ordnance found by Royal Naval minehunters and the Americans' side-scan sonar boat.

The Americans used side-scan sonar, embarked on Egyptian launches to search some areas of the Canal, contacts being marked and recovered later by Egyptian diving groups. An American magnetometer system, which detects metal objects by their magnetic signatures, was also tried but proved to be effective only in the Bitter Lakes where metallic density was low. In the Canal proper there was so much metal present that the magnetometer was literally swamped and contacts could not be seen.

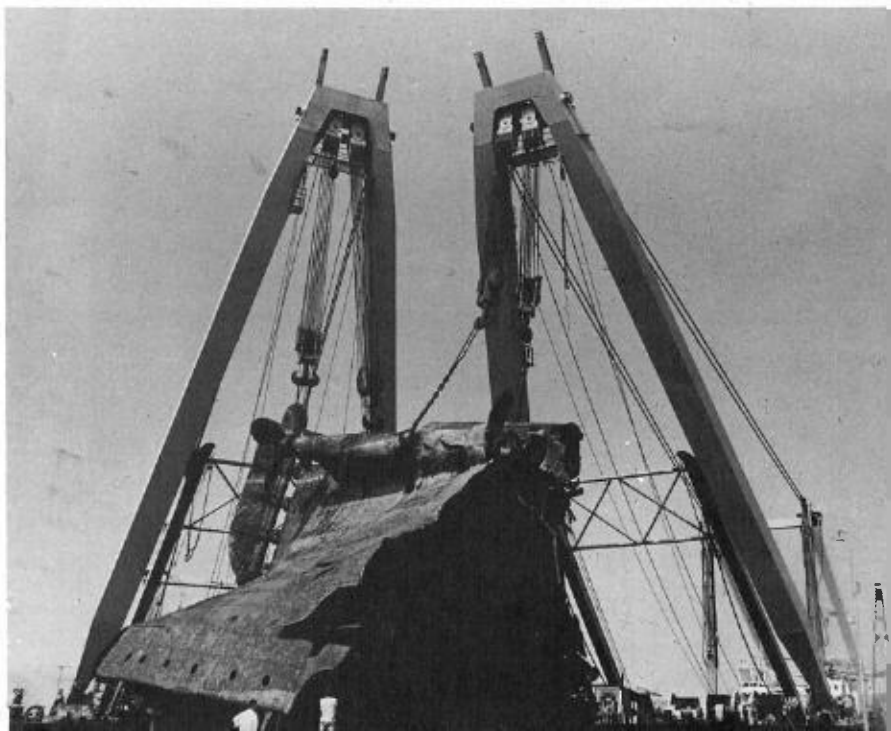
The French joined the clearance operations in the middle of June with the arrival of their minesweepers *Gardénia* and *Acanthe*, and agreed to undertake clearance of both Canal banks from zero to three metres depth. The minesweepers acted only as diving tenders, with the *Acanthe* remaining alongside while *Gardénia* went on task with about fourteen divers on board. The highly competent French divers used similar techniques to the Fleet Clearance Diving Team and found a vast quantity of ordnance, much of it having been thrown into the Canal during land clearance operations. The minesweepers were relieved at Suez about every six weeks for, in the intense heat, living conditions on board these ships were rather unpleasant.

For NIMBUS MOON (land), the removal of ordnance to a distance of 500 metres from the Canal banks, the US Army provided the Egyptian Army with the necessary training and expertise to enable the Egyptian Engineers to conduct the actual land clearance themselves. A total of 686,000 land mines were cleared as well as some 18,000 other items,

varying from mortar shells to 1,000-lb bombs. This hazardous operation was costly in life for the Egyptians who had at least ninety-six people killed in the clearance. In fact more Engineers were killed in clearance operations than were killed in the October War of 1973.

The last, the one totally American, phase of the clearance operation was NIMROD SPAR, the removal of wrecks from the Canal. This major task was contracted to Murphy Pacific, an American salvage firm, under the command of the US Navy's Supervisor of Salvage.

In 1967 nine Egyptian ships and a concrete caisson had been sunk in the Canal to block the waterway; of these the largest wreck was the *Mecca*, a 7,000-ton merchant ship sunk seven kilometres south of Port Said. Close to the north of the *Mecca* was a sunken 1,500-ton cargo vessel,



A further massive section of the wreck *MECCA* is lifted ►

(United States Navy Photograph)

the *Ismailia*. The remaining wrecks comprised the *Madg*, a small 2,400-ton tanker sunk just north of Suez, three tugs each of 1,200 tons displacement and three dredgers, weighing between 1,500 and 2,000 tons, sunk in various positions from just north of Lake Timsah to Suez in the south.

To complete the Operation, two heavy-lift cranes capable of lifting 500 tons each were brought from Europe, and the US Navy's two heavy-lift craft, together capable of lifting 4,000 tons, were towed to Suez from the Philippines. The smaller wrecks were lifted by the heavy-lift craft and taken intact to dumping areas in the Bitter Lakes and Suez Bay, whilst the larger wrecks were cut into pieces weighing sometimes 1,000 tons each and lifted on to the banks of the Canal by the 500-ton cranes. The concrete caisson of 3,800 tons was sunk between Lake Timsah and Deversoir and proved to be the most difficult obstruction of all to clear.

These physical obstructions effectively made transit the length of the Canal impossible for all but the smallest ships; even the Royal Naval minehunters and French minesweepers found navigating past the wrecks distinctly tricky. A successful end to Operation NIMROD SPAR was therefore as essential to the Suez Canal Authority's plans for reopening the Canal as was the clearance of ordnance and, until the wrecks were removed, the ships which had been in the Bitter Lakes since 1967 remained trapped.

Operation NIMROD SPAR, the cost of which was estimated at \$46,000 a day, was completed in December 1974.

Throughout the various clearance phases, the United States maintained a continuous medical evacuation capability, keeping two CH-46 Chinook helicopters at

Ismailia airfield. Fortunately no accident was serious enough to require urgent evacuation but the knowledge that the capability existed was a gratifying assurance to everyone. These aircraft also served as logistics and communications helicopters.

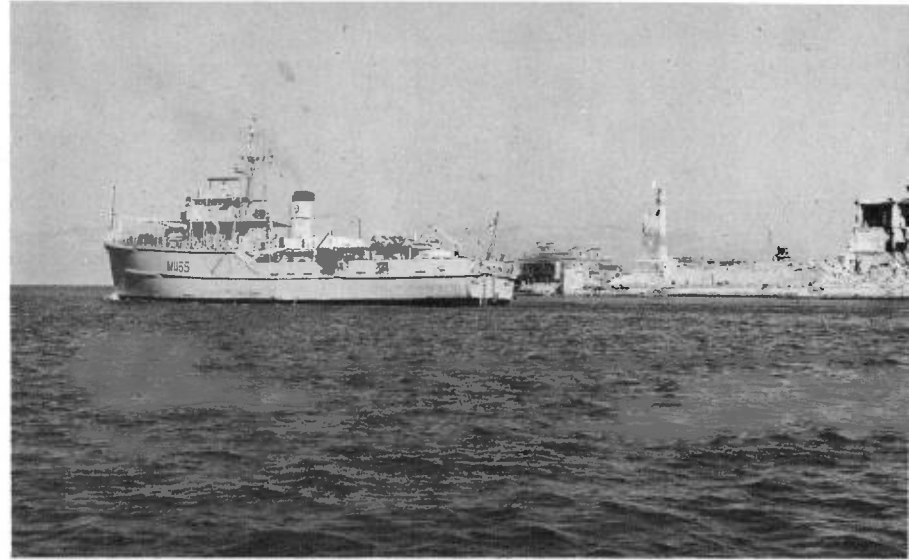
Ashore it was pretty rough—

▼ The remains of the once beautiful Port Taufiq



First Complete Transit of Canal for Seven Years

-so *Abdiel* remained at Ismailia!



▲ *MAXTON* exits the Canal on 14 July to enter Suez Bay after the first complete transit since 1967

Away from it all

A show staged for the Task Group by the SCA



A letter received by a sailor from his wife:

My dearest love,

Between the security of childhood and the insecurity of second childhood, I find the group humanity, called 'SAILOR'.

You come in assorted sizes, in ships, in dirty No. 8 suits, in messes, in love, in pubs, and always in debt! Ha! Girls love you, officers tolerate you, and the Government support you.

A sailor is laziness with a pack of cards, bravery with a tattered James Bond, and a protector of the nation with a dozen pints in you. You have the energy of a tortoise, the slyness of a fox, the brains of an idiot, the stories of an old sea captain, the security of a born liar, and the inspiration of a Casanova.

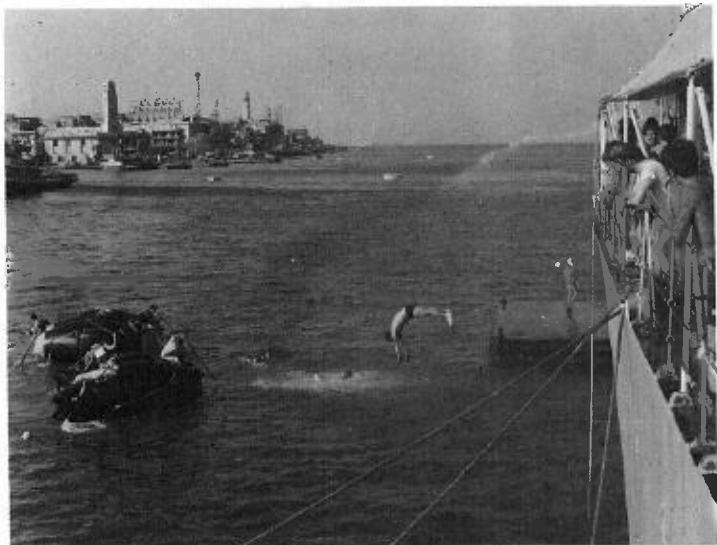
Some of your interests are: girls, women, females, dames, birds, bits of skirt, and the opposite sex.

You dislike: answering letters, wearing uniform, your Divisional Officers, and hearing the wife is pregnant again.

You like to spend your money on: girls, drink, the pools, horses; the rest you squander foolishly.

Altogether, a sailor is a magical creature. I could lock you out of my home, darling, but never out of my heart. I love you.

Agnes
xxx



▲ For Allah created the English mad—the maddest of all mankind! ▲
Kipling



▲ Volleyball at Ismailia

▼ The whole Task Group off task in Lake Timsah





DON'T LOOK AT ME, IT WAS
YOU WHO SAID LETS GO TO
CAIRO!

The Members of Task Group 65.2

The heroes of our plot:

HMS *ABDIEL*

COMMANDING OFFICER

Commander J D W Husband OBE (Commander Task Group 65.2)

OFFICERS

Lieutenant Commander J E Thompson
Lieutenant R W Curtis MBE
Lieutenant A Howard RM
Surgeon Lieutenant A Hammer

Lieutenant Commander G L Gough
Lieutenant T J Dempster
Sub Lieutenant J J Whiting
Sub Lieutenant V Stradling

Surgeon Lt Cdr C W Evans
Lieutenant R Still MBE
Sub Lieutenant J C Rapp

Lieutenant D E Whitehouse
Lieutenant P Balfour
Sub Lieutenant D J Griggs

SENIOR RATINGS

FCMEA(P) P T Alford MBE
CCEA B Cattermoul
MEA W Patton
MECH1 J F Drewell
MEA1 J F Raybone
POMEM A G Allan
REA2 T J Delves
POMEM D B Homer
POCK P A Spencer
POOEL T Dearden

MAA J S Paterson
CCEL W McIntosh
OEMN1 M W Bunton
OEMN1 R Harrop
CPOSA A J Robertson
POSTD R Coburn
POMEM P D Dippie
POMEM K B Maclean
POMA I R Whitehead
POMEM T Cartwright

MAA J Skinner
CCEA R Morrison-Chapman
OEA1 S G Byrne BEM
MECH1 J McDevitt
OEMN1 P V White
POCEL R A Croysdale
POOEL K G Elliott
PO P N Rope
POSTD P Amos
Mr J Johnson (NAAFI Manager)

MECH1 R Kay
CPO PTI P I Evans
REMNI A D Currie
MEA1 J McGuckin
MEA1 C Walsh
MEA2 R Deaton
CY D M Harrison
RS R J Rushworth
POSA D Nairne

JUNIOR RATINGS

LS J W Banks
LS I Priest
AB J R Bonham
AB L Gillespie
AB P Hughes
JS R Shaw
AB P J Tutty
AB R Webster
LS I McIntosh
CK P Neary
RO A L Bird
RO S Ginns
AB T Johnstone
MEM G G Williams
RO A M Duff
RO R Thorp
LOEM M T Ballingall
LWTR A J Murrey
LREM M Thomson
LOEM A J Gillie
OEM G G Harris
OEM E Richardson
CEM G M Thompson
STD A Sunderland
CEM S Herring
LMEM R S Sallis

LS D J Bridgeland
LS T Ward
AB J Ellington
AB S R Kerr
AB M O'Brien
AB D Simon
AB M Vose
AB T Newlove
LCK T Gettins
CK A Corner
AB R Chaters
RO J W Green
LS T D Llewellyn
RO P J Sandall
RO P Horne
RO P Conway
LSTD A B Gatt
LSA J D Harrison
CK P W Barker
REM W B Gilmore
JS T L Holloway
STD T A Reid
OEM G W Wilson
LCK I McKenzie
MEM J Kearney
LMEM P L Twells

LS H A Drury
AB P A Andrews
CK G Donaldson
AB M E Kirk
AB T W Platt
AB A Snowball
AB A Bandy
AB L Skelsey
LRO R Stevens
CK T Roberts
AB W H Gash
RO G Hindmarch
RO P W McNaughton
RO S P Williams
RO G Appleby
RO J Madigan
LWTR S B Pudney
LSTD R A Loftus
OEM E J Dale
REM R Grubb
REM M Mackay
CK F Reid
STD W Bensley
REM J Green
LMEM J Simmons
LMEM D Butler

LS J W Hart
AB T Beckwith
AB R W Foster
AB D R Horsburgh
ORD G Rich
AB R N Stanley
AB J Mair
AB A Crane
STD G W Burrell
LCK E Cooper
RO G B Gerstenberger
RO G L Jones
RO W A Moore
AB I W Upham
RO J Todd
RO G Farquhar
LWTR G N Strother
LREM A Elliott
STD C Fraser
OEM J Gunning
SA G S Nicoll
CK R P Smith
LSTD J Papierowski
LOEM H Adams
SA R Keyes
LMEM R A Kelly

LMEM D W Richards
CK G Cromar
MEM A R Lewandowski
MEM A W Stringer
MEM F Stubberfield

MEM G K Brackley
MEM A Harvey
MEM K Rawlings
MEM A Gray
Mr T Morris (Canteen Assistant)

MEM W J Boyd
MEM C I Jackson
MEM T W Rigby
SA T Barnes
AB W Paterson

MEM J A Campbell
MEM D R Lee
CK G L Robinson
MEM J Inglis

LIAISON STAFF ASHORE

Commander A Harris

Lieutenant Commander F Malbon

Lieutenant J J Howard

CPOWTR R M Macauley

HMS *BOSSINGTON*

COMMANDING OFFICER
Lieutenant J R L Turner MBE

OFFICERS

Lieutenant C G Massie-Taylor
Sub Lieutenant C E Stanley

Lieutenant A J G Miller
Midshipman D Hodson

Lieutenant N P Gent

Sub Lieutenant T R Williams

SENIOR RATINGS

PO S Sissons
MECH S Grattan

CEA B Morgan
POMEM T Murphy

CEA C H Ford
POMEM A Lauder

MEA D W Crosbie

JUNIOR RATINGS

LMEM T Thomson
LS P Bailey
MEM R A Matthews
OEM M L Scheel
AB J F Brown
AB A P O'Donovan
AB S McNulty
AB R Scrivener
AB P Gettins

LMEM J C Crosier
LCK R Kiddel
MEM I S Wakefield
AB R J Cook
CK A Poolton
REM C D H Carpenter
AB J A Miller
AB K G Graham
AB R C Rosher

LOEM F M Worrall
LS J E Flintoft
MEM K D Norris
AB P Byers
RO G P Shilton
AB J P E Howarth
AB J W Maunton
AB K M Geddes BEM
ORD J W Bradshaw

LRO S S Houlding
LS A Walker
MEM D E Partridge
AB V S Clarke BEM
AB B T Lycett
STD A K Hall
AB R J Godsell
MEM G P Collins

HMS *MAXTON*

COMMANDING OFFICER
Lieutenant T W Paul MBE

OFFICERS

Lieutenant D Leach
Sub Lieutenant J Hepburn

Lieutenant A McCurry
Midshipman K C R Podger

Sub Lieutenant R Govan

Sub Lieutenant R B Malcolm

SENIOR RATINGS

CPO J Dadd BEM
POMEM D H R McCloy

MEA R Clough

POMEM A Smith

CEA D J Morcum

JUNIOR RATINGS

STD D J K Penny

LCK T Murphy

CK V S M Gough

CEM B McMullan

LOEM B Jones
MEM D R Williams
LRO G Fallows
AB R A P Baker
AB K Wilkie
AB D Wilkinson
AB M P Horne
AB M J Brewer

OEM D Strang
MEM P Goy
LRO A Robertson
AB G Willmer
AB R L Chiswell
AB P T Harmer
AB N L Stanton

REM D R P Tindall
MEM D G Weir
LS R W Cunningham
ORD I D A Henderson
AB A D Andrews
AB D J Collier
AB G Pinder

LMEM J H Brown
MEM B G Shepcar
AB M T Hughes
ORD M J Beckitt
AB N M Clarke
AB P N Taylor
AB B Baillie

HMS WILTON

COMMANDING OFFICER

Lieutenant Commander T Trounson MBE relieved by Lieutenant J J Howard

OFFICERS

Lieutenant J Hendrick
Midshipman A Haste

Lieutenant J J Cook
Midshipman M Marr

Sub Lieutenant G Ramsay

Sub Lieutenant S J Hambrook

SENIOR RATINGS

PO T A Luter
POMEM M R Wheelhouse

PO J Timberlake
POOEL J F Peet

CMECH B A Anderson
POREL J M Russell BEM

POMEM P Smith

JUNIOR RATINGS

LS A Brown
AB R E Street
AB D P Baker
LMEM T Malster
RO G Craggy
OEM R Stokes
LRO R J Birch
AB S Begley
LS N V A Jones
LS G Goodhead
LS D Hilton

LS P J Bird
AB J McLoy
AB R Rhodes
LMEM J R Wright
MEM R Germar
REM K J Watts
AB S J Gunnell
STD A Johnson
LRO D M Thomas
AB D Kitson
AB S Bates

REM J Coultas
AB S C Harvey
AB K Sowerby
LREM J D Hill
MEM P Cook
STD D Harris
JS J Norman
AB D G Morris BEM
LS D Wilson
LRO B Burke
LS P Lyon

ORD B A Brown
AB S P Ruck
JS D Livingstone
LCK J M Rogers
AB R Davis
CK R Newin
AB D J Lowery
LRO A G Clark
OEM S Herdman
MEM V Barnes
AB G McManamon

FLEET CLEARANCE DIVING TEAM

OFFICERS IN CHARGE

Lieutenant Commander R W White MBE
FCPO D Lott BEM

SENIOR RATINGS

CPO B Bray BEM*

PO K Malham

PO G R Berry

JUNIOR RATINGS

LS J Pennington BEM
LS R Richardson
AB M Spiers
MEM M Creasey

LS C T Goff
LS B McVittie
AB W McGovern
ORD C Crowe

LS I B Smith
AB T Jary
AB N Firman
JS J Norman

AB N Matthews
LS J Howell
AB C Brown
AB A Carr

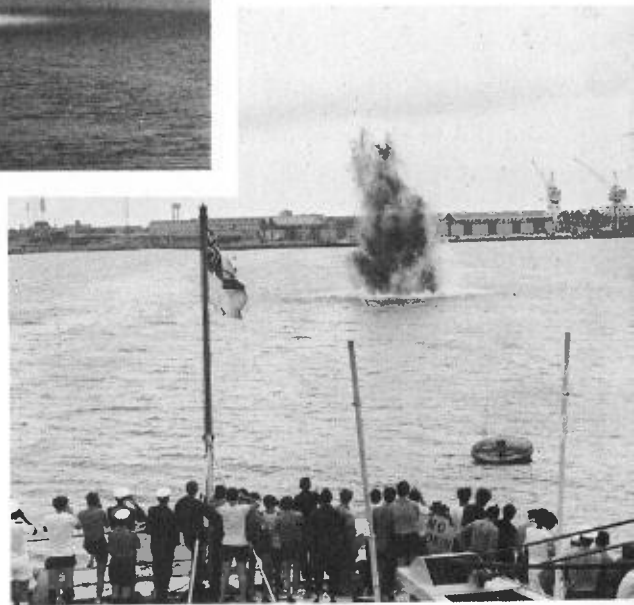


◀ In Suez Bay
(United States Navy Photograph)

NG



◀ A 1000-lb bomb is exploded
astern of *MAXTON*



ABDIEL's ship's company watches
an explosion in Port Said harbour ▶



◀ Close to the bank

The Final Score

After twenty-nine weeks operating in the Canal the haul of explosives found by Task Group 65.2 makes impressive reading:

Gelignite	458 sticks	Cluster Bombs	9
TNT (including ordnance found in barges, lighters and lorries)	209 tons	Bomblets	508
Missiles	78	Bombs: 250 lb	8
Anti Personnel Mines	517	500 lb	11
Anti Tank Mines	137	750 lb	3
Anti Tank Rockets	145	1000 lb	5
Aircraft Drop Tanks	3	Mortars Various	48
Rockets Various	14	Grenades	192
Shells Various	328	Small Arms Ammunition	6473 rounds
		Miscellaneous Items	334
		Scare Charges	201

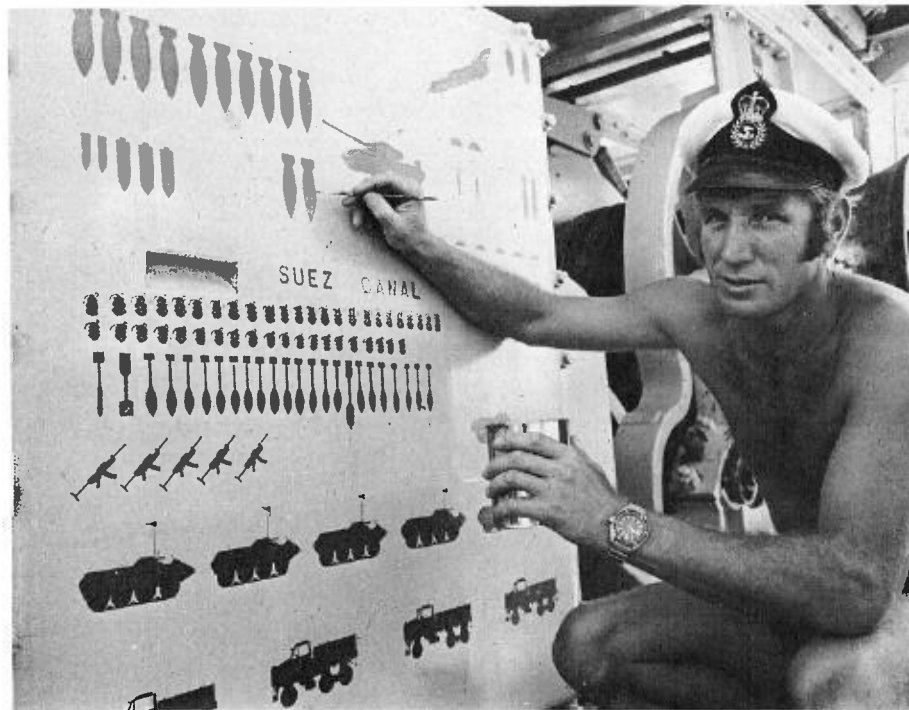
By far the largest quantity of assorted weapons and ammunition found is included in the 209 tons of TNT found in lorries and lighters lying on the bottom of the Canal. One such lighter alone contained about 175 tons of ordnance. Their loads probably included thousands of items of all the types of ordnance listed above and contained equipment made in the USSR, USA, Egypt, Czechoslovakia, Israel, Denmark, Britain and Switzerland.

in addition

The list of non-explosive items found is somewhat bizarre. It included:

Aircraft Wreckage	7
Tanks	3
Lorries and Personnel-Carriers	15
Pontoon Bridge Sections	33
Bodies	6
Navigational Buoys	29
Anchors	20
Girders	186
Miscellaneous Items	165
1340-ton Corvette*	1

—as well as oil drums galore, sections of railway track, steel wheels, firehoses, a firemain connection, welding rods, cargo pallets, a motorbike, a gas mask, several Egyptian kitbags, a diving knife, buckets, paint cans, a fan, a searchlight, a large bell, sardine tins, beer cans, a tin of baked beans, a rope-ladder, two Turkish coffee pots, and a pedlar's grindstone.



CPO J Dadd puts the finishing touch to *MAXTON's* ▲ scoreboard

* The *Misr*, previously the *Malrouk*, ex-RN Flower-class Corvette, which after collision with a Norwegian tanker sank eight miles south of Suez on 16/17 May 1953.

Future Plans for the Suez Canal

These extracts are from an article which first appeared on 5 September 1974 in *New Scientist*, London, the Weekly Review of Science and Technology.

Before the Six-Day War brought traffic to a standstill, prospects for the Canal looked good. In January 1967, a record 29 million tonnes of ships and cargo passed through the Canal, mainly from the south (Suez) to the Mediterranean (Port Said). Over the previous ten years, the amount of oil shipped through the Canal had increased by 155 per cent and the tonnage of dry cargo by 70 per cent.

But already the Egyptians were beginning to realise the need to dredge and widen the Canal. In the late 1950s the Government drew up the Nasser Project to anticipate and avoid the potential economic damage that could result from the growth in the number of tankers so large as to be unable to use the Canal route. The first stage in the project (deepening the Canal so that ships of 38 feet draught could pass through) was completed in February 1964. The Six-Day War halted work on the second stage (dredging to allow entry of ships drawing 40 feet of water) and the third stage never got off the ground.

Proposals even more ambitious than those are now abroad. Today's immediate objective is to restore the Canal for laden ships of 70,000 tonnes deadweight and 150,000 tonnes in ballast. By the early 1980s, the Egyptians hope that even larger tankers (250,000 tonnes laden deadweight) will be passing through. All this is, however, only a beginning. Port Said and Suez harbours are to be



"O/SEAMAN HIPPINS HAS ALREADY DECIDED THE FUTURE OF THE CANAL SIR," YOU'RE STANDING ON IT!

enlarged and to become free trade areas. Three new cities (one named after President Sadat) are to be built near Cairo. Ismailia is to be developed as a tourist resort (at the moment it boasts not a single hotel). An eight-lane road running the length of the Canal and passing under it through five tunnels would be constructed. A \$400 million pipeline would be built by an Italian corporation between Suez and Alexandria, where a refinery is planned.

Before any of this could begin, however, someone had to clean up the debris of two wars—admittedly brief, but between armies equipped with some of the most sophisticated weapons yet devised.

Back with a Bang

An extract from an article which first appeared
in *Navy News* October 1974

Suez is the kind of four-letter word which can still evoke emotion among the British. Flooding back come memories of commerce, shipping, military power and war in a distant land, culminating in the recollection of the traumatic episode which for many came to symbolise the end of an era.

But now the British are back at Suez, with more prestigious a return than could perhaps have been visualised. In the forefront has been the Royal Navy, cast once again in the role of roving ambassadors of goodwill and good works which it has so often played down the years.

Worldwide and admiring attention has focused on Navy skills, as the mammoth operation of clearing the famous Canal has progressed during summer 1974. As the unique task draws to a close the sailors who sweated it out in temperatures of 100+° F can look back on a time of true job satisfaction.

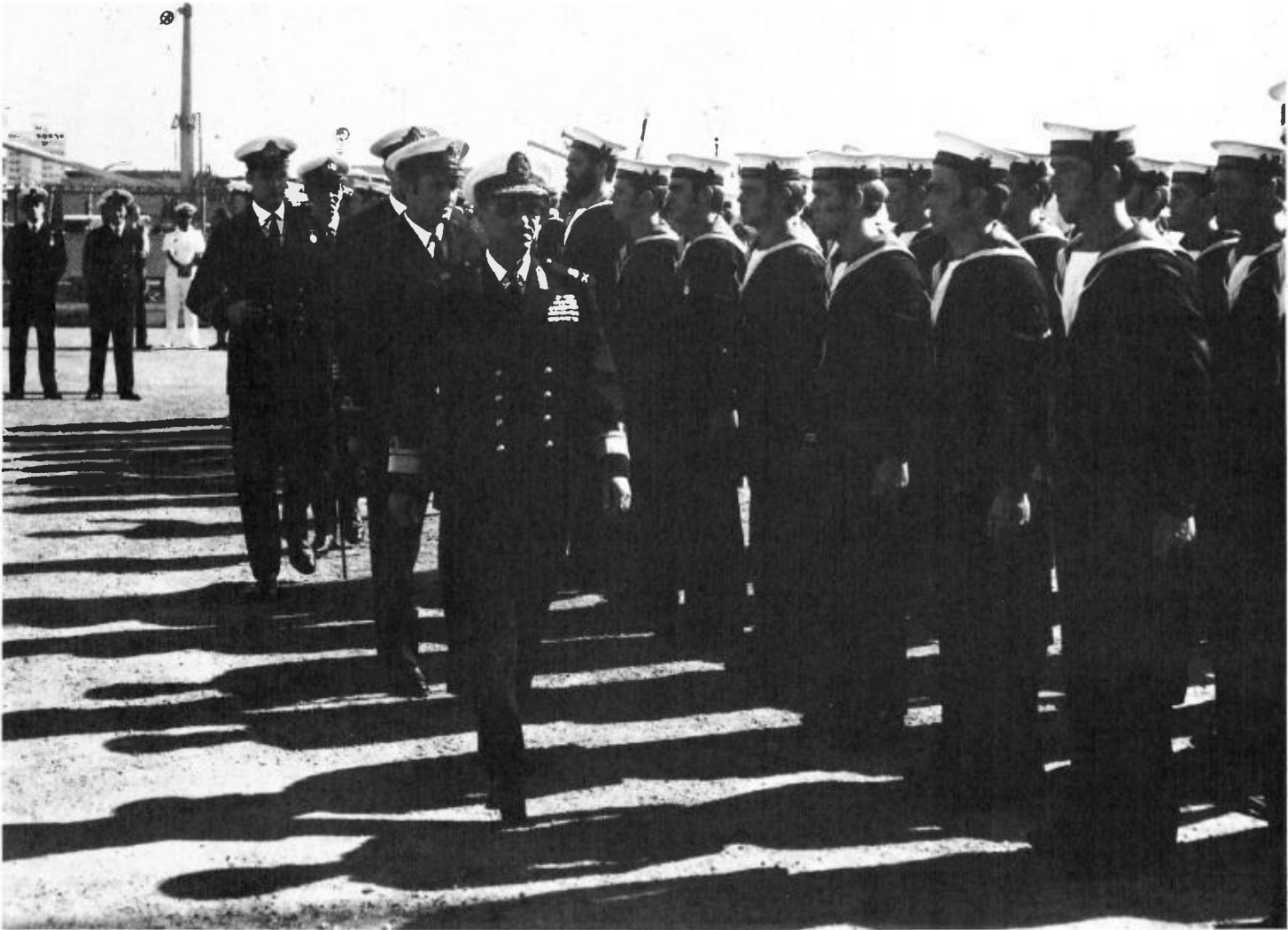
The sailor's lot comes in many guises, often in the 'bread and butter' sea routines of trials, work-up, exercises and the like. But Operation RHEOSTAT, the removal of the massive debris of war from the 100-mile Canal, presented the reality of a challenge in deadly earnest and with only the sailor's training and techniques standing between him and disaster.

At the end of Operation RHEOSTAT the Task Group received the following signal from Her Majesty's Ambassador to Egypt, His Excellency Sir Philip Adams, KCMG:

ON YOUR DEPARTURE FROM EGYPT I WANT TO THANK YOU AGAIN FOR THE JOB YOU HAVE DONE NOT ONLY IN MAKING THE SUEZ CANAL SAFE FOR SHIPPING BUT AS A CONTRIBUTION TO ANGLO-EGYPTIAN AND INTER-ALLIED RELATIONS IN A MUCH WIDER AREA. ALL WHO FOLLOWED THE COURSE OF THE OPERATION ADMIRERD THE CALM AND CHEERFUL EFFICIENCY WITH WHICH IT WAS DONE. I KNOW SOMETHING OF THE HAZARDS WHICH WERE INVOLVED AND OF THE HARDSHIPS ENDURED. THEY WERE OVERCOME WITH SPECTACULAR RESOLUTION AND SUCCESS.

This crest was designed specially to ► commemorate Operation RHEOSTAT





Rear Admiral Fouad inspects divisions at Ismailia on 1 November prior to the Task Group's departure

Final Word

Well! What a year! I doubt that any of us, as we basked in the snow of South Queensferry, for one moment thought that we should be spending seven months of the year in Egypt. Gone for ever, I hope, is the accusation that the First and Second Mine Countermeasures Squadron ships are just day-runners.

There was, I think, something rather satisfying in being part of history, and there can be little doubt that the Royal Naval Task Group contributed an important chapter in the history of the Suez Canal and the Middle East. What is also very satisfying is the knowledge that we tested our ships and men in a task of some complexity and danger and found both well able to compete.

What we at the super-heated coalface sometimes forgot, however, was that we were not entirely on our own. We were supported, not only in Cairo, but in Cyprus, Malta and in the UK, by a large number of people who kept us fed, supplied and occasionally entertained. This might be a good moment to thank them.

What more can be said? All the 'Well dones' have long since been given and I have noticed a number of people buying new, larger-sized hats. But your achievement is something of which to be proud and I hope that you will look back on these long hot months with satisfaction. I also hope that this book will, in the years to come, bring back good memories.

David Sturton

**In recognition of their efforts during
the Suez Canal Clearance the following
were awarded decorations in the New
Year's Honours List 1975:**

Officer of the Order of the British Empire
Commander J D W Husband

Member of the Order of the British Empire

FCMEA (P) P T Alford

Lt R W Curtis

Lt T W Paul

Lt R Still

Lt Cdr T Trounson

Lt J R L Turner

Lt Cdr R W White

British Empire Medal:

CPO B E Bray

OEA1 S G Byrne

AB V S Clarke

CPO J Dadd

AB K M Geddes

AB D G Morris

LS J Pennington

POREL J M Russell

Our job done we left for home



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