



British Intelligence Superiority, 1939-1948, Based on Breaking Haganah Ciphers

Version 1.06

The Association for the Commemoration of the Fallen Soldiers of the IDF Signal Corps, 2025

Colonel (Ret) Daniel Rosenne

Background

British Deciphering of Haganah Ciphers

- **The Haganah operated radio networks since 1937 until the establishment of the State of Israel in 1948.**
 - The radio networks operated at high frequencies, using Morse signaling.
- **The traffic on the radio networks was encrypted, using manual transposition methods.**
 - The Haganah commanders believed that the encryption was safe and reliable, but this was far from reality.
- **In July 1946, following a British 'White paper' after the 'Black Sabbath', it became clear that the British were intercepting the radio traffic and deciphering the Haganah ciphers.**
 - Following the incident, the Haganah's communications service changed the codes.
 - Since then, the British were in an 'Intelligence Blackout' regarding the Jewish Agency, the Haganah and the Palmach.
- **The British managed to decipher the code of the 'Gideon' radio network, in the service of the Mossad for Aliyah Bet, which enabled the British to intercept the illegal immigrant ships.**

British Activity

- **The British deciphered Haganah Signal Service ciphers since 1939. and intercepted the Haganah radio networks since 1942:**
 - The Haganah's radio traffic was for the British an 'open book'.
 - The British had no difficulties: the Haganah used simple ciphers, did not change keys frequently, and used to transmit many long messages.
- **In 1944, the Haganah networks were designated as a "*Priority Number 1*", "*of prime importance*", for the post-war period:**
 - The British established an effective mechanism for radio interception, transmitting the traffic to London for deciphering and translation to English, and delivering the information to Palestine.
- **The intercepted and deciphered traffic was transmitted by teleprinters on a dedicated network, encrypted using Typex cipher machines.**
- **The Haganah radio traffic, intercepted and deciphered, was the main and most reliable British intelligence source.**

British Operations

- **Radio transmissions, intercepted in Sarafand (Palestine), Egypt and Cyprus, were transmitted to London for deciphering and translation.**
 - The process took four hours for urgent messages, 16 to 31 hours for all other traffic.
 - Special messages were distributed immediately; the rest of the messages were distributed in summaries of a thousand messages.
- **The British took unique security measures, and deciphered messages had top security classification.**
 - Only a small number of specially indoctrinated staff (about 15 senior commanders in Palestine) received the information.
 - British code names for the deciphered traffic: ISPAL, ISOATS, ISTRIA, FOG, GLINT, CREAM.

Practical Issues

- **Jewish employees of the British code breaking center in Bletchley Park did not hide their sympathy for Zionism.**
 - Bletchley Park Zionist cell operated openly.
- **Therefore, the decryption of Haganah ciphers was done at the GCHQ Diplomatic Department at 8 Berkeley Street, London .**
 - In 1946, the operation moved to offices at 10 Chesterfield Street, London.
- **Translating 'modern' Hebrew into English was a major challenge for the British.**
 - Especially since it was not possible to get help from Jews.



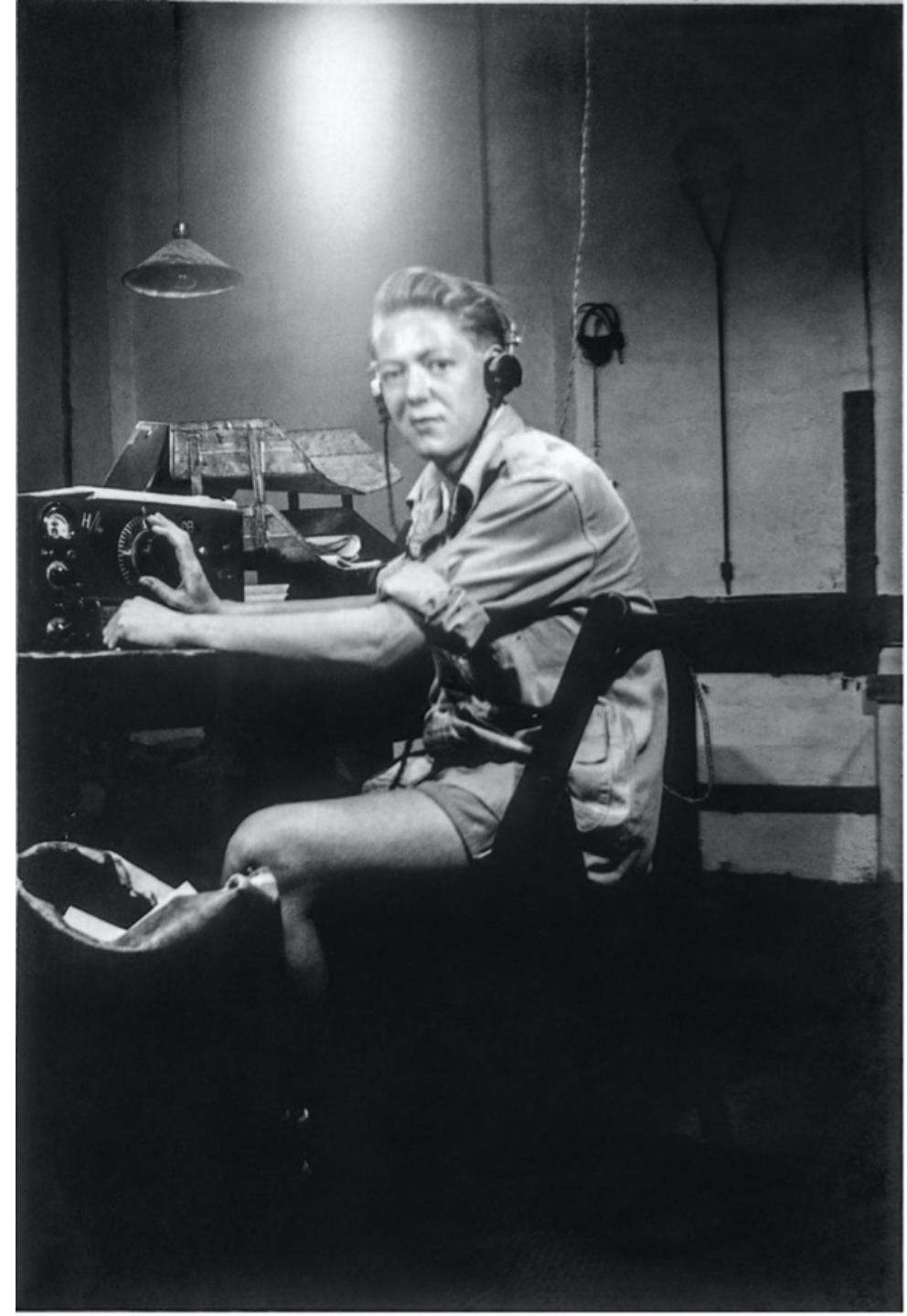
Clandestine HF Radio Station, Kibbutz Dorot, 1940's

Courtesy of Government Press office,
National Photo Collection, D285-029

Radio Interception

- **MERS (Middle East Radio Security) unit operated from the Sidi Bishr camp near Alexandria - intercepting, among other, Haganah radio networks.**
- **This activity was carried out during the World War and until June 21, 1946, when the unit was closed and the activity was transferred to Cyprus**

MERS operator at the Sidi Bishr camp,
Courtesy Ray Wright



SIME in Cairo, DSO in Jerusalem

- **In 1939, MI5 established a counter-espionage center in Cairo, called SIME (Security Intelligence Middle East)**
 - The SIME branches, operating in Baghdad, Jerusalem, and Cyprus, were called DSO (Defence Security Officer).
- **The Jerusalem DSO was an officer with the rank of Lieutenant Colonel.**
 - An officer from the DSO brought the intelligence document to the indoctrinated partners and destroyed it after reading.
- **The DSO in Jerusalem had a unique intelligence function:**
 - Chief Comint and Humint analyst, including all material from CID and Military Intelligence, advising top political and military figures on intelligence, security and counter-terrorism.
 - Directing planes and warships to intercept illegal immigrant ships.
- **The DSO in Jerusalem operated from the King David Hotel.**
 - In the hotel explosion, 22 July 1946, six of its 13 members were killed, the rest were wounded and hospitalized, and the intelligence database was destroyed..

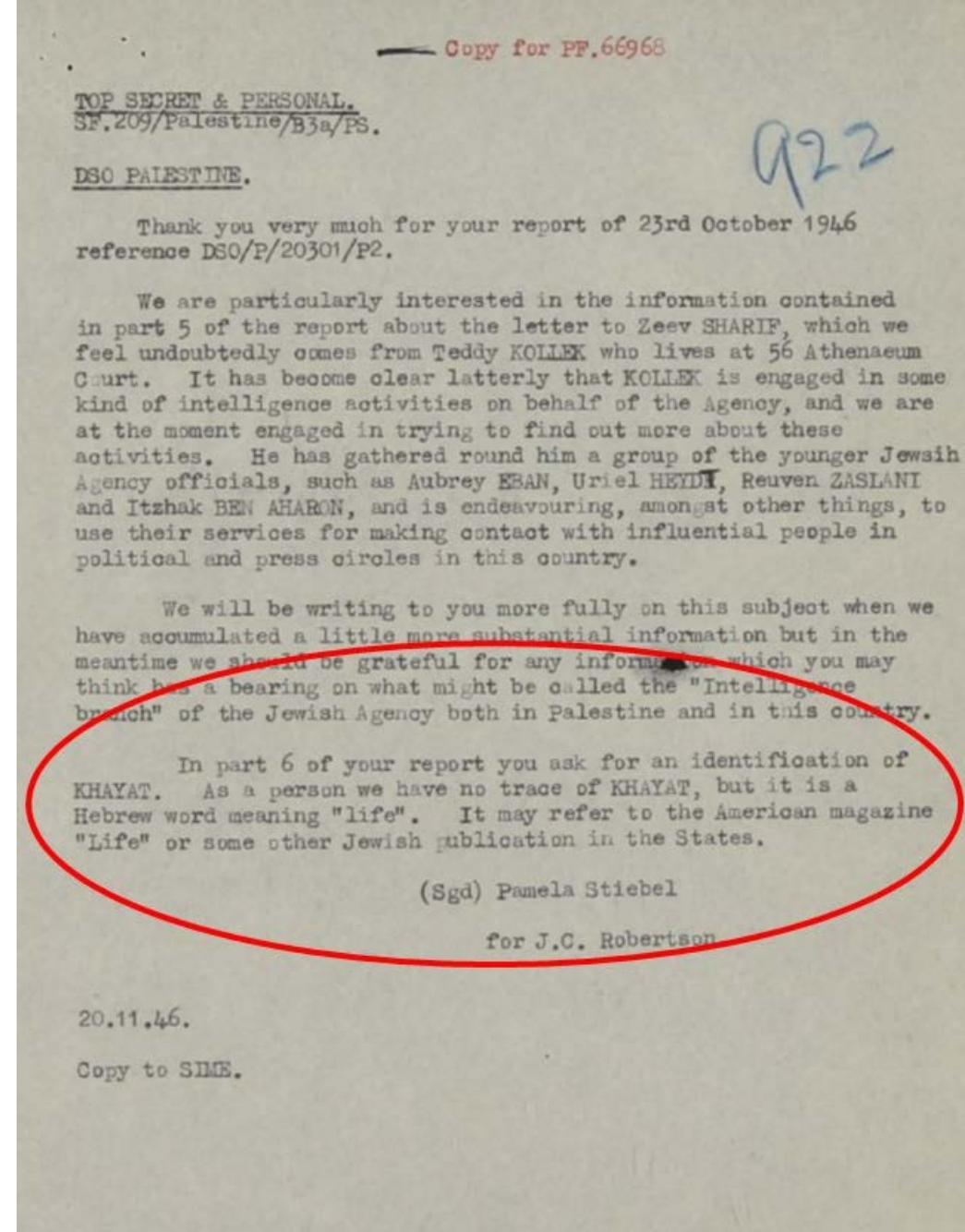
Major Owen Chadwick

- **On June 13, 1946, a British military court sentenced two Irgun fighters to death by hanging for their involvement in an attack on the Sarafand camp.**
 - In response, on June 18, the Irgun kidnapped five British officers and threatened to hang them if the sentence was carried out.
 - One officer managed to escape after 36 hours; the rest were released after the High Commissioner commuted the death sentence to life imprisonment.
- **The fleeing officer, Major Chadwick, was a DSO officer who was kidnapped in Jerusalem on his way to General Barker, and in his pocket was a deciphered, 'top-secret' Haganah message.**
 - The Irgun fighters did not search him or locate the message.
- **After 36 hours, the officer escaped from his captors, boarded bus number 3 on Jaffa Street, got off at the King David Hotel and called the army.**
- **The British suspected that the Major was a double agent, flew him to London for interrogation, and 'calmed down' only when it became clear that the traffic continued to flow and that the Haganah continued to use the same cipher.**

The Tailor

- **George Francis Taylor was a senior staff member of the SOE, who was sympathetic to the Zionist movement.**
 - Taylor commanded the Special Operations Directorate's operations in the Balkans during WW2.
- **Members of the Jewish Agency political department maintained regular contact with him, calling him by the code name 'Khayat' (Tailor in Hebrew).**
- **The translator, apparently of Arab origin, translated the word 'Khayat' into the word 'life':**

...you ask for an identification of KHAYAT. As a person we have no trace of KHAYAT, but it is a Hebrew word meaning "life". It may refer to the American magazine "Life" or some other Jewish publication in the States".



The King David Hotel Explosion

- **The Secretariat of the British Mandate Government and the British Military Headquarters.**
- **The Irgun blew up the hotel on July 22, 1946,**
 - Irgun fighters smuggled seven milk jugs into the kitchen on the lower floor of the southern wing, each containing 50 kilograms of explosives.
 - The explosion collapsed the entire southern wing, killing 91 people, including the Mandatory Postmaster General and DSO personnel, and injuring 45 people.
 - Among the dead were 15 Jews.
- **The violence shocked the Yishuv, and led to the splitting of the Jewish Resistance Movement, the operational cooperation between the Haganah, the Irgun and the Lehi, that existed since October 1945.**



IWM E.31975, photo by Sgt. Turner

Haganah Ciphers

The Haganah Ciphers – A Brief History

- **Established in 1937, the Haganah Signal Service initially utilized the cipher methods used by the British Mandate police.**
 - Over time, they shifted to techniques of the Yugoslav military, brought in by Eli Schwartz from Kibbutz Afikim, who had former experience as a Signals officer in the Yugoslav armed forces.
- **In July 1946, it became clear that the British deciphered the messages, prompting a major change.**
 - This change created a period of British 'intelligence blackout'.
- **By August 1947, the Signal Service concluded that the British could once more decipher their communications and made further changes.**

Simple Cipher: 1939

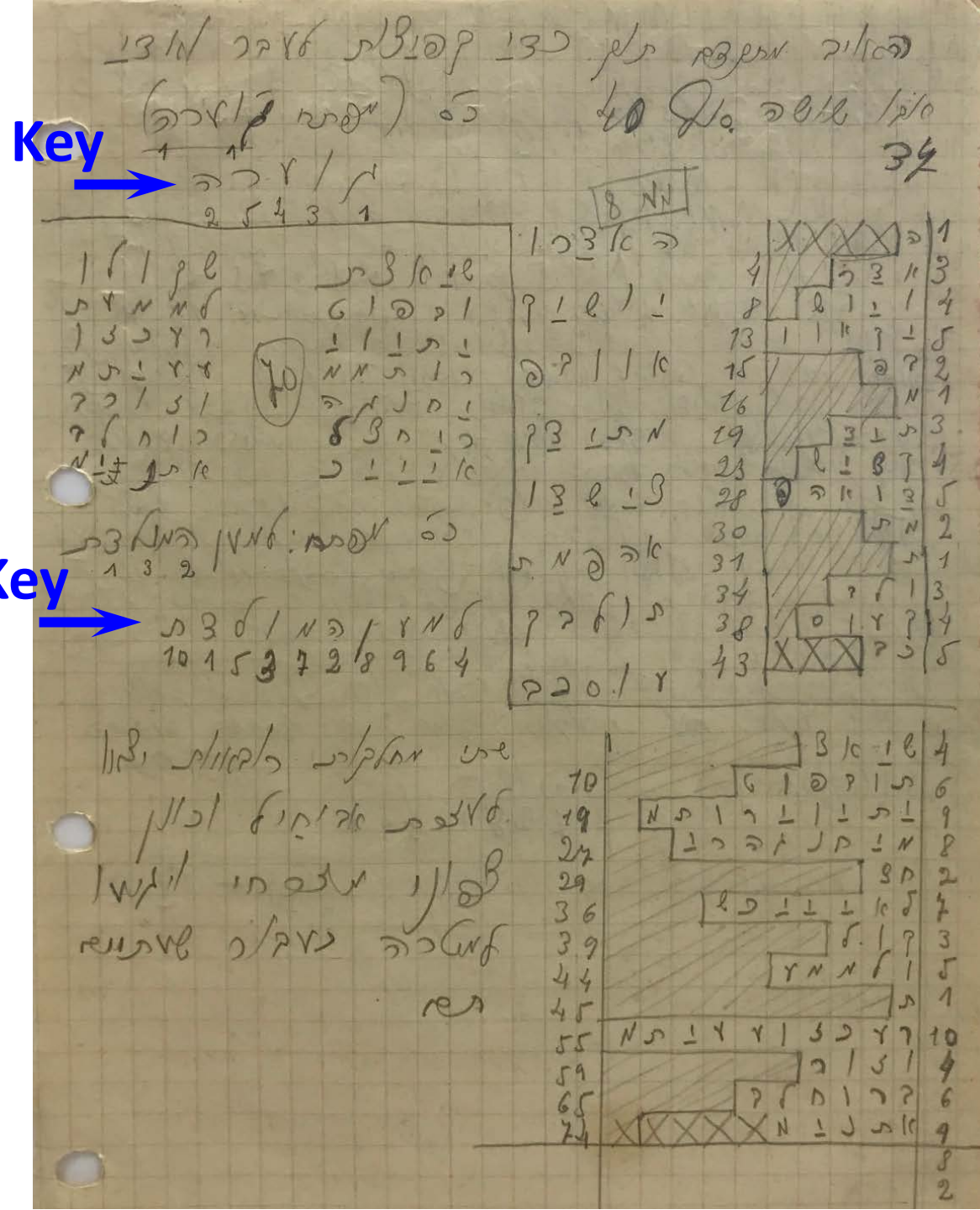
- Secret cipher based on substitution of letters
- The list was changed every few days

The image shows a handwritten cipher table on a grid. It consists of three columns of letters and Hebrew characters. The first column contains the letters X, T, I, N, D, L, K, B, C, G, E, K, N, A, M, S, R, H, O, J. The second column contains the letters i, A, P, T, A, S, B, N, K, R, C, H, X, O, J, N, M, E, V, L, F. The third column contains the letters i, J, L, E, V, H, D, C, B, K, N, S, G, X, P, F, O, R, M, A, T, Z. Below each column, there are Hebrew characters: the first column has א, ב, ג, ד, ה, ו, ז, ח, ט, י, כ, ל, מ, נ, ס, ע, פ, ק, ר, ש, ת; the second column has א, ב, ג, ד, ה, ו, ז, ח, ט, י, כ, ל, מ, נ, ס, ע, פ, ק, ר, ש, ת; the third column has א, ב, ג, ד, ה, ו, ז, ח, ט, י, כ, ל, מ, נ, ס, ע, פ, ק, ר, ש, ת. At the bottom of each column, there are numerical notations: /11=15.6, .16/20=6., and 21.25.6.

X	א	i	א	א
T	ב	A	ב	ב
I	ג	P	ג	ג
N	ד	T	ד	ד
D	ה	A	ה	ה
L	ו	S	ו	ו
K	ז	B	ז	ז
B	ח	N	ח	ח
C	ט	K	ט	ט
G	י	R	י	י
E	כ	C	כ	כ
K	ל	H	ל	ל
N	מ	X	מ	מ
A	נ	O	נ	נ
M	ס	J	ס	ס
S	ע	N	ע	ע
R	פ	M	פ	פ
H	ק	E	ק	ק
O	ר	V	ר	ר
J	ש	L	ש	ש
	ת	F	ת	ת
/11=15.6		.16/20=6.		21.25.6

1941 Transposition Cipher

- Cipher based on letter transposition, according to an agreed key
- The clear text was inserted vertically into the columns (right to left) where the row lengths are determined by the key.
- The encrypted text was extracted from right to left and transmitted in five letter groups.



Yugoslav Transposition Cipher

- This is a columnar transposition cipher.
- The encryption was based on an agreed password
- The password letters were replaced with numbers, with the numerical value – instead of the letters – given from low to high
- The message was written in a table, and transmitted in five-letter groups composed in the numerical sequence.

Password →

מ	י	ד	ו	ה	י	ה	ת	מ	ח	ל	מ
11	7	1	4	2	6	3	12	9	5	8	10
ר	ח	מ	ה	פ	י	ח	ל	ע	י	ג	נ
נ	ל	ו	נ	י	כ	ה	ר	ק	ו	ב	ב
ז	ז	ה	פ	ו	ח	ד	ה	ר	ז	ע	ו
ז	ז	ר	ו	מ	ג	ל	מ	י	צ	ו	ר

The 'Black Sabbath' and the British 'White Paper'

'Black Sabbath' Events

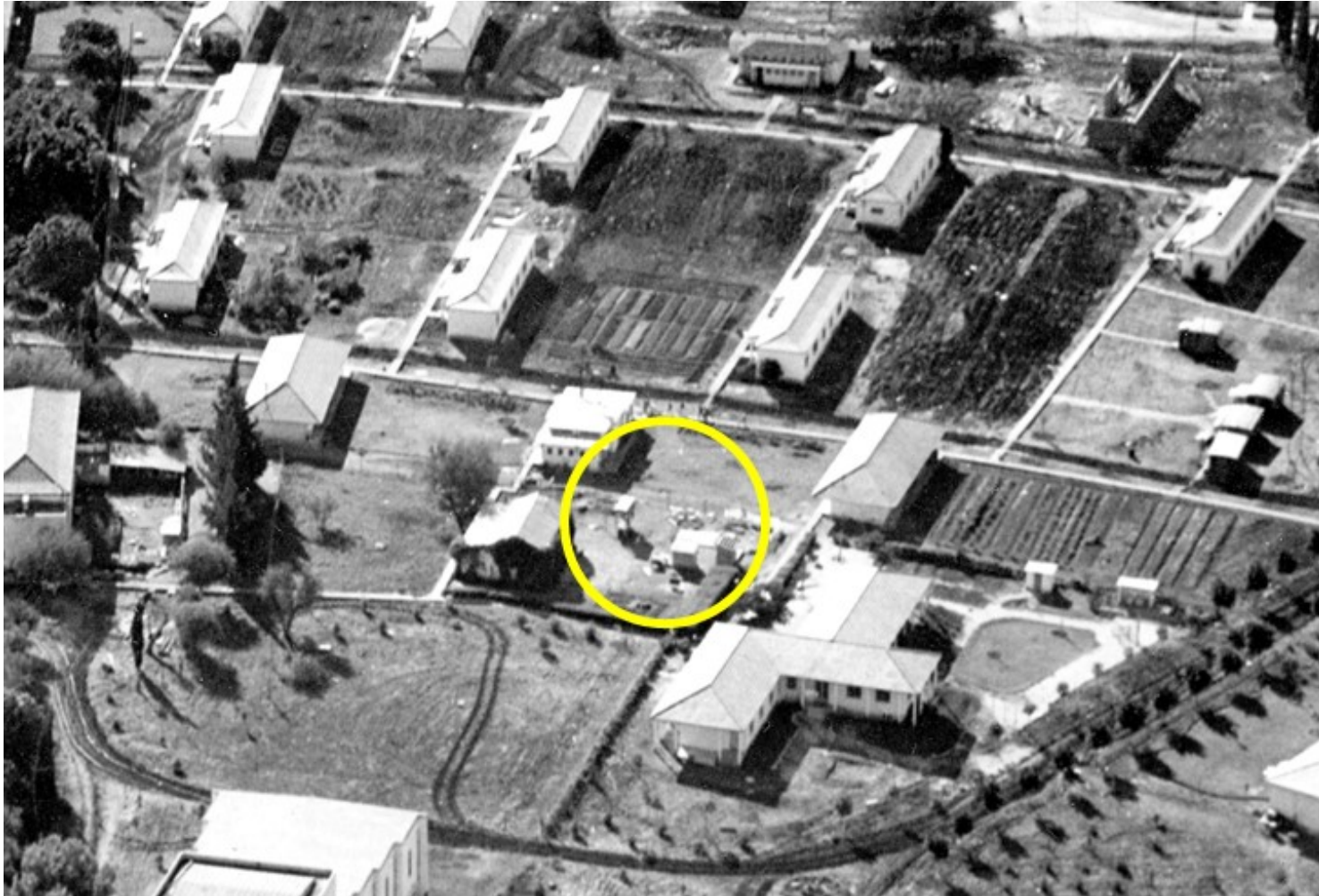
- **In October 1945, in an attempt to change the British policy on the Palestine question, the "Hebrew Resistance Movement" was established – Haganah activity, together with the Irgun and Lehi, against the British.**
- **Extensive operations were carried out against the British.**
 - The most prominent of which was the 'Night of the Bridges', between June 16 and 17, 1946, blowing up 11 bridges on the Palestine borders, temporarily cutting off the British supply routes.
- **On Saturday, June 29, 1946, the British launched 'Operation Agatha' against the Jewish Agency and the Haganah, known as the 'Black Sabbath'.**
 - Curfews were imposed on Tel Aviv, Jerusalem, Haifa, Ramat Gan, Netanya and more, and house-to-house searches were conducted; 2,700 people, including many of the Yishuv's leaders, were arrested and interned in detention camps in Rafah and Latrun.

'Black Sabbath' – Consequences

- **Hostile public opinion in the United States and a vocal pro-Zionist opposition in Britain 'pressured' the British Labour government, headed by Clement Attlee.**
- **In order to prove the claim that the Jewish Agency was a terrorist organization, the British government published a 'White Paper' on July 25, 1946, which included decipherments of eight encrypted telegrams between the Jewish Agency's offices in London and Jerusalem.**
 - The white paper included telegrams that were transmitted to London from the 'Dafna' radio station in Tel Aviv, 19 Kibbutz Galuyot St.. (today 19 Jabotinsky St.) and replies that were sent as 'Innocent' telegrams
 - The Signal Service operated a one-way radio link from Kibbutz Gevat ('Sarah' station) to London since 1939, and in 1943 the station was moved to Tel Aviv ('Dafna' station)
- **From the white paper, the Yishuv's leadership learned that the British had 'broken' the Haganah ciphers.**
- **Following this alarming revelation, the Signal Service swiftly altered the cipher system.**

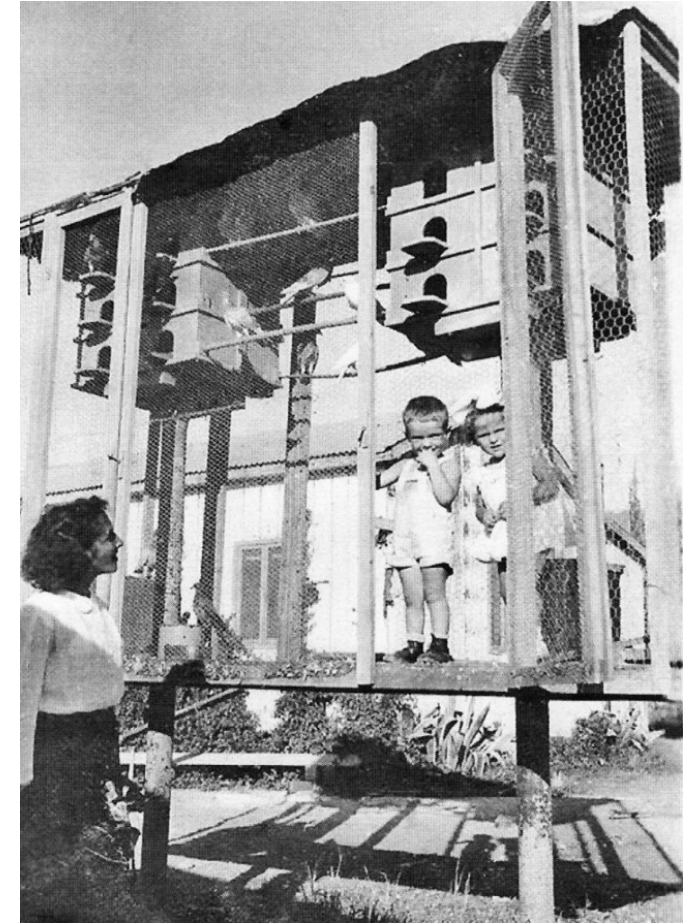
'Sarah' Radio Station, Kibbutz Gevat

The secret station was used for a clandestine radio link to London, operating from a camouflaged underground bunker ('Slick) from 1939 to 1943



Hut and the dovecot above the secret bunker, 1946 aerial photograph

Photographer: Zoltan Kluger; Courtesy of the Central Zionist Archives, PHKH/1264710



The bunker ventilation pipes served as the base for the kindergarten's pigeon dovecote – 1943

'Dafna' Station, Tel Aviv

**Jabotinsky and Dizengoff
corner**

**The radio station served
the political department
of the Jewish Agency,
operating until 1947**

**Photograph from the early
1970s**

The British White Paper, July 1946



COLONIAL OFFICE

PALESTINE

STATEMENT OF INFORMATION RELATING TO ACTS OF VIOLENCE

*Presented to Parliament by the Secretary of State for the Colonies
by Command of His Majesty
July 1946*

LONDON
HIS MAJESTY'S STATIONERY OFFICE

TWOPENCE NET

Cmd. 6873

**The press detailed the
'White Paper' at length, and
dismissed it as 'Fake'**

3 Buried at "Pamleh"
Among the Dead"
Cashed Buried"

"Hasta Ultraserra + Chelidreosis" — " — " — 3.
" — " — " — 2. "U. S. Broad Cast of Birya Trip" — " — " — 4.
" — " — " — 3. "Funeral on Mt. Zion" (Festivals) — " — " — 2-3.

THE PALESTINE POST

ESTABLISHED 1882

EMPLOYERS'

urgent attention is drawn to Ex-Service Personnel seeking Employment through the classifieds of

THE PALESTINE POST

JERUSALEM
THURSDAY, JULY 25, 1946

PRICE 15 MILS
VOL. XXI, No. 6160

Column One
by
David Courtney

WHITE PAPER ON JEWISH RESISTANCE

EVIDENCE SEEKS TO LINK JEWISH AGENCY WITH VIOLENCE

ARAB STATES TAKE PALESTINE TO UNO

NEW YORK, Wednesday (R). — The United Nations secretariat announced last night Egypt's request that the General Assembly should consider her demand and that of the other Arab countries to call on Britain to end the present Palestine situation, and to install a new regime.

The nations joining with Egypt making the demand are Syria, Trans-Jordan, Iraq, Saudi-Arabia, the Lebanon, and Yemen. Egypt, it stated, has invited Britain to negotiate speedily with the Arab governments for a "new arrangement" before the General Assembly meets in September.

The communications which have passed between Egypt and Britain, and the letter submitted to Uno have been circulated to all the member-states.

The Egyptian note, express-

REVISED CASUALTY LISTS

Official casualty figures up to 9:30 last night were:

Dead: 61
Injured: 46
Missing: 50

THE London newspapers have convinced themselves that the Government is looking for a Palestine solution in Federalism. It is, of course, the ultimate solution to most of the political problems of the day; but like all capacious systems of Government, it takes in a lot of bad with the good. In the outline foreshadowed by "The Times" and filled in with more detail by the "News Chronicle," the Palestine scheme of Federation is unlikely to arouse much enthusiasm anywhere, and can be sure of fierce hostility from some quarters. In these days, half a loaf is no longer thought to be better than no bread; and a desperate struggle is often preferred to a victory half won. But recent events here and abroad have left no one in any doubt of the virulent character of the Palestine crisis; and any step towards a probable cure will have enough world opinion behind it to give it a sanction.

WIDE POWERS PROPOSED

LONDON, Wednesday. — While both long and short-term policies for Palestine are being considered by the British Cabinet, the military and civil authorities in Palestine are being given the widest powers to prevent further outrages.

These powers include possibly further detentions, temporary restrictions on meetings and on free speech and writing, power to make the most rigorous searches and to make arrests without specific charges.

The imposition of the death penalty for complicity in the preparation of murder plots and for possession of the means to carry them out is also being considered by the Cabinet.

Egypt's Appeal

Egypt's appeal to Britain in

LONDON, Wednesday (R). — The British Government tonight published in a White Paper some of the evidence on which the authorities in Palestine decided to raid the Jewish Agency's headquarters in Jerusalem at the end of June.

The main conclusions based on this evidence are:

- (1) The Hagānah and its associated force of Palmach — working under the political control of prominent members of the Jewish Agency — have been engaging in carefully planned movements of sabotage and violence under the name of the "Jewish Resistance Movement."
- (2) The Irgun Zvai Leumi and the Stern gang have worked since last autumn in cooperation with the Hagānah's high command on certain of these operations.
- (3) The broadcasting station Kol Israel, which claims to be the "voice of the resistance movement," and which was working under the general direction of the Jewish Agency, has been supporting these organizations.

The Government says that the evidence on which these conclusions are based is derived from intercepted telegrams passed between London and Jerusalem, from broadcasts by Kol Israel since last November, referring to specific acts of vio-

H.E. VISITS WRECKAGE

H.E. the High Commissioner visited the wreckage of the Chief Secretary's Office at the King David Hotel at noon yesterday.

General Cunningham was accompanied by the Chief Secretary, Sir J.V.W. Shaw, and the R.E. major in charge of rescue work. He inspected the area and spent some time talking with officers and men employed in the digging.

Fourteen more dead were extricated. No sounds came in answer to the shouts of rescue workers when they paused, during their work yesterday, to listen for signs of life in the ruins. After digging for 48 hours into the twisted mass of steel, concrete, wood and plaster, officers on the spot at noon yesterday estimated it would take about four more days to reach the bottom.

The Palestine Post, 25 July 1946:
White Paper on Jewish Resistance: Evidence Seeks to Link Jewish Agency with Violence

The New York Times

26 July, 1946

***PALESTINE CHIEFS DENY
ACCUSATIONS; Challenge
Authenticity of White Paper's Sources-
-Confer on Bombing Crisis More
Detailed Statement Likely Recalls
Action Against Arabs Resignation
Demand Renewed***

Faced with the British Government's White Paper alleging that some officials of the Jewish Agency for Palestine themselves connived with the terrorist organizations responsible for these outrages, community leaders authorized a statement challenging the authenticity of some of the documents on which the British charges are based. A spokesman of the agency said that, *"by adducing a jumble of alleged telegrams stated to have been sent nine months ago, of extracts from broadcasts by the Voice of Israel station and of passages culled from the publications of terrorist groups, the British Government claims to have obtained proof of cooperation between some members of the Jewish Agency and Haganah and of coordination in some cases between Haganah and terrorist bands. Not a single one of the alleged telegrams emanated from the Jewish Agency in Jerusalem. The Jewish Agency, which cannot accept the authenticity of these alleged telegrams, challenges the British Government to prove that the Jewish Agency was responsible for their composition, authorization or dispatch."*

More Detailed Statement Likely

"The executive of the Jewish Agency is giving careful study to this curious collection of alleged telegrams, broadcasts and publications." as a more detailed statement may be issued as a result of the study. **Meanwhile some of the questions raised in Zionist quarters are these: Would such astute men Moshe Shertok, Bernard Joseph and Moshe Sneh send incriminating telegrams knowing that they might be intercepted? Why did the British Government wait nine months to act on evidence that, if correct, points to a criminal conspiracy? Will this evidence stand the test of a court trial in which the accused would have the opportunity of defending themselves?**

Arab opponents of Zionism accepted the evidence as authentic. In a statement issued today Dr. Hussein Khalidi, secretary of the Arab Higher Committee, said that the "Jewish Agency and all that it stands for must go. It is high time that it become an unlawful association."

Intelligence Blackout?

Following the event, the Signal Service changed its ciphers

- **The British lost their ability to read the radio traffic of the Jewish Agency, the Haganah and the Palmach**
- **The British lost their main intelligence source at a crucial period**
- **The almost sole British intelligence source at the time was the local press and the broadcasts of Kol Israel (the Voice of Israel), the Haganah underground broadcasting station**
- **The British jammed Kol Israel broadcasts from November 1945, but at the end of 1946 priority was given to listening to the broadcasts, and the jamming was stopped.**
 - *The cover story was that "The venom of the Voice of Israel was weakened, and as a result the Jammers were instructed to lay-off" (TNA WO 261/738).*

Recovery of the Signal Service after the 'Black Sabbath'

TOP SECRET CREAM, 15 July 1946, 0615, From SLU Clover (Signal Liaison Unit Jerusalem)

TOP SECRET CREAM

To: L.S.I.C. &
SLU CAIRO.

TOO: 150615/7/46

From: SLU CLOVER.

TOR: 161015/7/46

IMMEDIATE

BRAN/YD 6(B). Personal for ROBERTS repeated.

KELLAR from BURBIDGE. SITREP 47.

12th July inclusive.

1. Political.

(A) Jewish political picture revealed by SNEH in signal to BEN C confusion, and possible discord between

2. W/T. HAGANA and PALMACH ciphers changed 0001 hours 9th July but illegal immigration network not affected. Changes of pseudonyms and cover terms also taking place in Palestinian system. Documents captured at YAGUR include HAGANA and PALMACH callsign lists, a code and 6 keys. PALMACH W/T course now reassembling.

Gideonim – Signal Service radio operators of the clandestine 'Gideon' radio network, serving the Mossad Le'aliya Bet, Haganah illegal immigration (Ha'apala) arm



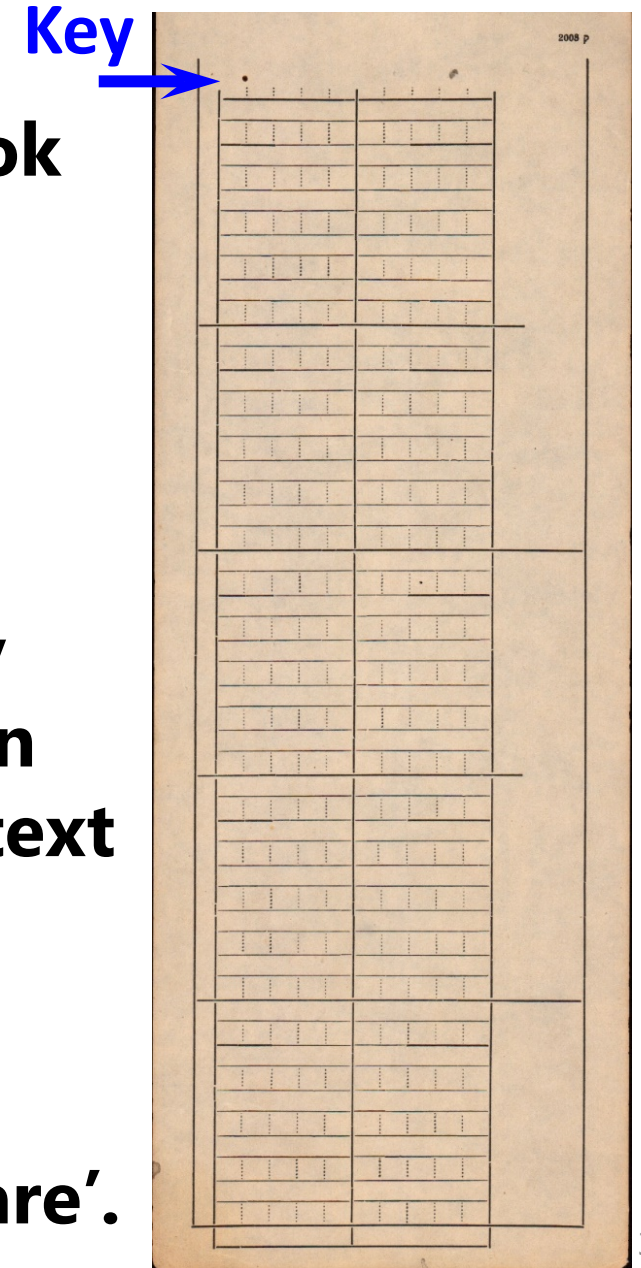
Radio operator aboard ship
Palmach Archive, 11522



Radio operator, Marseille, France, 1946
Palmach Archive, 17142

The Signal Service Changed to Advanced Substitution Cipher

- The key, 10 letters, was taken from an agreed book page or a line from a poem, and was frequently changed.
- The key was written as the top line of the encryption form.
- For transmission, the clear text was written every second line, and the encrypted text was written in the line underneath; in receiving, the encrypted text was written every second line, and the clear text was written underneath.
- Letter substitution was based on a manual calculation method, similar to the 'Vigenère square'.



20 × 20 'Vigenère Square'

Only 20 letters were coded, the letters F, V, X & Y were not encrypted. Shin was replaced by Tav, and Tav was replaced by Shin.

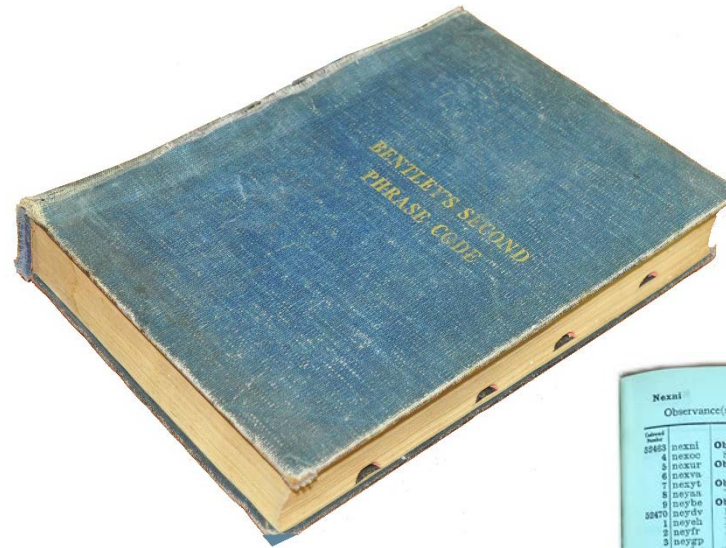
Plaintext

ר	ק	צ	פ	ע	ס	נ	מ	ל	כ	י	ט	ח	ז	ו	ה	ד	ג	ב	א	
א	י	ק	צ	פ	ע	ס	נ	מ	ל	כ	ר	ט	ח	ז	ו	ה	ד	ג	ב	א
ב	כ	י	ק	צ	פ	ע	ס	נ	מ	ל	א	ר	ט	ח	ז	ו	ה	ד	ג	ב
ג	ל	כ	י	ק	צ	פ	ע	ס	נ	מ	ב	א	ר	ט	ח	ז	ו	ה	ד	ג
ד	מ	ל	כ	י	ק	צ	פ	ע	ס	נ	ג	ב	א	ר	ט	ח	ז	ו	ה	ד
ה	נ	מ	ל	כ	י	ק	צ	פ	ע	ס	ד	ג	ב	א	ר	ט	ח	ז	ו	ה
ו	ס	נ	מ	ל	כ	י	ק	צ	פ	ע	ה	ד	ג	ב	א	ר	ט	ח	ז	ו
ז	ע	ס	נ	מ	ל	כ	י	ק	צ	פ	ו	ה	ד	ג	ב	א	ר	ט	ח	ז
ח	פ	ע	ס	נ	מ	ל	כ	י	ק	צ	ז	ו	ה	ד	ג	ב	א	ר	ט	ח
ט	צ	פ	ע	ס	נ	מ	ל	כ	י	ק	ח	ז	ו	ה	ד	ג	ב	א	ר	ט
י	ב	א	ר	ט	ח	ז	ו	ה	ד	ג	ק	צ	פ	ע	ס	נ	מ	ל	כ	י
כ	ג	ב	א	ר	ט	ח	ז	ו	ה	ד	י	ק	צ	פ	ע	ס	נ	מ	ל	כ
ל	ד	ג	ב	א	ר	ט	ח	ז	ו	ה	כ	י	ק	צ	פ	ע	ס	נ	מ	ל
מ	ה	ד	ג	ב	א	ר	ט	ח	ז	ו	ל	כ	י	ק	צ	פ	ע	ס	נ	מ
נ	ו	ה	ד	ג	ב	א	ר	ט	ח	ז	מ	ל	כ	י	ק	צ	פ	ע	ס	נ
ס	ז	ו	ה	ד	ג	ב	א	ר	ט	ח	נ	מ	ל	כ	י	ק	צ	פ	ע	ס
ע	ח	ז	ו	ה	ד	ג	ב	א	ר	ט	ס	נ	מ	ל	כ	י	ק	צ	פ	ע
פ	ט	ח	ז	ו	ה	ד	ג	ב	א	ר	ע	ס	נ	מ	ל	כ	י	ק	צ	פ
צ	ר	ט	ח	ז	ו	ה	ד	ג	ב	א	פ	ע	ס	נ	מ	ל	כ	י	ק	צ
ק	א	ר	ט	ח	ז	ו	ה	ד	ג	ב	ח	פ	ע	ס	נ	מ	ל	כ	י	ק
ר	ק	צ	פ	ע	ס	נ	מ	ל	כ	י	ט	ח	ז	ו	ה	ד	ג	ב	א	ר

key

The Jewish Agency Political Department Used the Bentley's Code Book

- Commercial phrase book enabling transmission of five letter groups instead of full sentences, for saving on telegram costs, paid according to number of words.
- Used as a code book by the Government Department of the Jewish Agency for Palestine since late 1946.
 - A daily key number (for example: 41,945) was added to the code book number, as superenchipherment.



Nexal		357		Neyh	
Observance(s)	* Best number on left of last five-letter column in index, instead of meaning on right of it.	Observance(s)	* Best number on left of last five-letter column in index, instead of meaning on right of it.	Observance(s)	* Best number on left of last five-letter column in index, instead of meaning on right of it.
02463	4 nexnl	02538	9 nfon	02590	1 nfuhr
4 nexoc	Strict observance (of)	9 nfuw	Obtained by	1 nfuhr	Obtained for
5 nexur	Observation(s)	2 nfuw	Obtained from	2 nfuhr	Obtained in (them)
6 nexva	225 †	3 nfuw	To be obtained	3 nfuhr	To be obtained
7 nexyl	Observe(s)	4 nfuw	To observe	4 nfuhr	Obtaining (see also "GETTING" and "OBTAINING")
8 nexaa	To observe	5 nfuw	Obviate (see also "AVOID")	5 nfuhr	Obviate (s) the necessity (for)
9 nexbe	Observed	6 nfuw	470 (numerical) †	6 nfuhr	Obviate (see also "AVOID")
02470	1 nexbv	7 nfuw	Obvious (see also "AVOID")	7 nfuhr	Obvious
1 nexbh	Was observed	8 nfuw	Obvious (s)	8 nfuhr	Obvious (s)
2 nexbr	Must be observed	9 nfuw	Obvious (s)	9 nfuhr	Obvious (s)
3 nexgp	Not observed	02500	Obvious (s)	1 nfyic	Obvious (s)
4 nexhy	467 (numerical) †	2 nfyko	(see) Obvious reason	2 nfyko	Obvious (s)
5 nexjy	Strictly observed	3 nfyow	Obvious (s)	3 nfyow	Obvious (s)
6 nexjd	To be observed	4 nfyru	Obvious (s)	4 nfyru	Obvious (s)
7 nexkl	Observing	5 nfyru	Obvious (s)	5 nfyru	Obvious (s)
8 nexvl	Obsolete	6 nfyru	Obvious (s)	6 nfyru	Obvious (s)
9 nexyl	Obstacle (s) (to)	7 nfyru	Obvious (s)	7 nfyru	Obvious (s)
02480	1 nexym	8 nfyru	Obvious (s)	8 nfyru	Obvious (s)
2 nexyx	No obstacle (to)	9 nfyru	Obvious (s)	9 nfyru	Obvious (s)
3 nexyo	Obstacle(s) in the way (of)	02500	Obvious (s)	02500	Obvious (s)
4 nexyw	Remove obstacle(s) (to)	1 nfyko	Obvious (s)	1 nfyko	Obvious (s)
5 nexyw	Obstinate	2 nfyko	Obvious (s)	2 nfyko	Obvious (s)
6 nexyk	422 †	3 nfyko	Obvious (s)	3 nfyko	Obvious (s)
7 nexys	Obstinately	4 nfyko	Obvious (s)	4 nfyko	Obvious (s)
8 nexys	Very obstinate(ly)	5 nfyko	Obvious (s)	5 nfyko	Obvious (s)
9 nexys	Obstruct (see also "HINDER" and "OBSTRUCT")	6 nfyko	Obvious (s)	6 nfyko	Obvious (s)
02490	1 nexyz	7 nfyko	Obvious (s)	7 nfyko	Obvious (s)
2 nexyz	Obstructed (see also "HINDER" and "OBSTRUCT")	8 nfyko	Obvious (s)	8 nfyko	Obvious (s)
3 nexyz	Obstructing (time(s)) ("PAUSE")	9 nfyko	Obvious (s)	9 nfyko	Obvious (s)
4 nexyz	No obstruction(s)	02500	Obvious (s)	02500	Obvious (s)
5 nexyz	Obstructive	1 nfyko	Obvious (s)	1 nfyko	Obvious (s)
6 nexyz	Obstructive tactics	2 nfyko	Obvious (s)	2 nfyko	Obvious (s)
7 nexyz	Very obstructive	3 nfyko	Obvious (s)	3 nfyko	Obvious (s)
8 nexyz	Obtain (s) (see also "GET" and "RE-")	4 nfyko	Obvious (s)	4 nfyko	Obvious (s)
9 nexyz	Can obtain	5 nfyko	Obvious (s)	5 nfyko	Obvious (s)
02500	468 (numerical) †	6 nfyko	Obvious (s)	6 nfyko	Obvious (s)
1 nexza	Cannot obtain	7 nfyko	Obvious (s)	7 nfyko	Obvious (s)
2 nexza	Do utmost to obtain	8 nfyko	Obvious (s)	8 nfyko	Obvious (s)
3 nexza	Might obtain	9 nfyko	Obvious (s)	9 nfyko	Obvious (s)
4 nexza	Must obtain	02500	Obvious (s)	02500	Obvious (s)
5 nexza	Obtain about	1 nfyko	Obvious (s)	1 nfyko	Obvious (s)
6 nexza	Obtain for	2 nfyko	Obvious (s)	2 nfyko	Obvious (s)
7 nexza	Obtain in (them)	3 nfyko	Obvious (s)	3 nfyko	Obvious (s)
8 nexza	Obtain (s) (them)	4 nfyko	Obvious (s)	4 nfyko	Obvious (s)
9 nexza	Shall we (I) obtain	5 nfyko	Obvious (s)	5 nfyko	Obvious (s)
02510	469 (numerical) †	6 nfyko	Obvious (s)	6 nfyko	Obvious (s)
1 nexza	The utmost can obtain (s)	7 nfyko	Obvious (s)	7 nfyko	Obvious (s)
2 nexza	To obtain	8 nfyko	Obvious (s)	8 nfyko	Obvious (s)
3 nexza	Try to obtain	9 nfyko	Obvious (s)	9 nfyko	Obvious (s)
4 nexza	What is utmost can obtain	02500	Obvious (s)	02500	Obvious (s)
5 nexza	Will obtain	1 nfyko	Obvious (s)	1 nfyko	Obvious (s)
6 nexza	Obtainable (see also "GET" and "RE-")	2 nfyko	Obvious (s)	2 nfyko	Obvious (s)
7 nexza	223-01-01 †	3 nfyko	Obvious (s)	3 nfyko	Obvious (s)
8 nexza	Obtainable (at, in)	4 nfyko	Obvious (s)	4 nfyko	Obvious (s)
9 nexza	If obtainable (at, in)	5 nfyko	Obvious (s)	5 nfyko	Obvious (s)
02520	470 (numerical) †	6 nfyko	Obvious (s)	6 nfyko	Obvious (s)
1 nexza	Not obtainable (at, in)	7 nfyko	Obvious (s)	7 nfyko	Obvious (s)
2 nexza	Not obtainable here	8 nfyko	Obvious (s)	8 nfyko	Obvious (s)
3 nexza	Nothing obtainable	9 nfyko	Obvious (s)	9 nfyko	Obvious (s)
4 nexza	Obtainable anywhere	02500	Obvious (s)	02500	Obvious (s)
5 nexza	227 †	1 nfyko	Obvious (s)	1 nfyko	Obvious (s)
6 nexza	Obtainable at	2 nfyko	Obvious (s)	2 nfyko	Obvious (s)
7 nexza	Utmost obtainable	3 nfyko	Obvious (s)	3 nfyko	Obvious (s)
8 nexza	Obtainable (see also "GET" and "RE-")	4 nfyko	Obvious (s)	4 nfyko	Obvious (s)
9 nexza	Can be obtained (at, in)	5 nfyko	Obvious (s)	5 nfyko	Obvious (s)
02530	471 (numerical) †	6 nfyko	Obvious (s)	6 nfyko	Obvious (s)
1 nexza	Can it be obtained (at, in)	7 nfyko	Obvious (s)	7 nfyko	Obvious (s)
2 nexza	Cannot be obtained (at, in)	8 nfyko	Obvious (s)	8 nfyko	Obvious (s)
3 nexza	Have not obtained	9 nfyko	Obvious (s)	9 nfyko	Obvious (s)
4 nexza	Have obtained	02500	Obvious (s)	02500	Obvious (s)
5 nexza	Have you obtained	1 nfyko	Obvious (s)	1 nfyko	Obvious (s)
6 nexza	If not obtained	2 nfyko	Obvious (s)	2 nfyko	Obvious (s)
7 nexza	May be obtained (at, in)	3 nfyko	Obvious (s)	3 nfyko	Obvious (s)
8 nexza	Might be obtained (at, in)	4 nfyko	Obvious (s)	4 nfyko	Obvious (s)
9 nexza	Not obtained	5 nfyko	Obvious (s)	5 nfyko	Obvious (s)
02540	472 (numerical) †	6 nfyko	Obvious (s)	6 nfyko	Obvious (s)
1 nexza	Obtained at (in)	7 nfyko	Obvious (s)	7 nfyko	Obvious (s)
2 nexza	Obtained in (s)	8 nfyko	Obvious (s)	8 nfyko	Obvious (s)
3 nexza	Obtained in (s)	9 nfyko	Obvious (s)	9 nfyko	Obvious (s)
4 nexza	Obtained in (s)	02500	Obvious (s)	02500	Obvious (s)
5 nexza	Obtained in (s)	1 nfyko	Obvious (s)	1 nfyko	Obvious (s)
6 nexza	Obtained in (s)	2 nfyko	Obvious (s)	2 nfyko	Obvious (s)
7 nexza	Obtained in (s)	3 nfyko	Obvious (s)	3 nfyko	Obvious (s)
8 nexza	Obtained in (s)	4 nfyko	Obvious (s)	4 nfyko	Obvious (s)
9 nexza	Obtained in (s)	5 nfyko	Obvious (s)	5 nfyko	Obvious (s)
02550	473 (numerical) †	6 nfyko	Obvious (s)	6 nfyko	Obvious (s)
1 nexza	Obtained in (s)	7 nfyko	Obvious (s)	7 nfyko	Obvious (s)
2 nexza	Obtained in (s)	8 nfyko	Obvious (s)	8 nfyko	Obvious (s)
3 nexza	Obtained in (s)	9 nfyko	Obvious (s)	9 nfyko	Obvious (s)
4 nexza	Obtained in (s)	02500	Obvious (s)	02500	Obvious (s)
5 nexza	Obtained in (s)	1 nfyko	Obvious (s)	1 nfyko	Obvious (s)
6 nexza	Obtained in (s)	2 nfyko	Obvious (s)	2 nfyko	Obvious (s)
7 nexza	Obtained in (s)	3 nfyko	Obvious (s)	3 nfyko	Obvious (s)
8 nexza	Obtained in (s)	4 nfyko	Obvious (s)	4 nfyko	Obvious (s)
9 nexza	Obtained in (s)	5 nfyko	Obvious (s)	5 nfyko	Obvious (s)

**The British succeeded in
continuing to decipher
the messages of the
Mossad for Aliyah Bet**

XP Messages from 'Ha'apala' Vessels

- Illegal immigrant ships transmitted an 'XP message' every several hours, in which they indicated their position, direction and speed of movement, in a fixed format.**
- These messages were intercepted and deciphered by the British, and were the main source of intelligence for the 'Palestine Patrol'.**
- These messages presented the British with a limited challenge: fixed format, numerals only content (no need for translation from Hebrew to English).**

XP Messages - Examples

אל: גליצין מאת: דלת חלאל

29.12. גאנץ
0630 גצה
39 39 צפון
25 48 מסבת
184 קוים
100 מריכור
גליצין יב

צ"י	שעה	יום	מ	
גליצין	דלת חלאל	29.	א	נכתב
/	1530	29.12.	א	נתקבל
				נמסר

2300 גליצין (30)
19
1900
4004
1300
127
050
2

19/7

XP message sent from the ship 'Yod Dalet Halaley Gesher Haziv' in July 1946, as received in Tel Aviv.

Haganah Archive, 14/232

XP message sent from the ship 'Kibbutz Galuyot' in December 1947 and delivered to Tel Aviv via Italy, as received in Tel Aviv.

Haganah Archive, 14/275

British Lancaster GR111 observation plane follows the Ha'apala ship 'Lochamei Hagetatot'

- 'Lochame Hagetatot' set sail from Italy on May 13, 1947 with 1,457 illegal immigrants.
- The British captured the ship in a fierce battle that lasted several hours, using water jets and tear gas.
- The ship was towed to Haifa and the immigrants were deported to Cyprus.
- Photo taken on May 23, 1947, from the deck of the British destroyer HMS Brissenden.



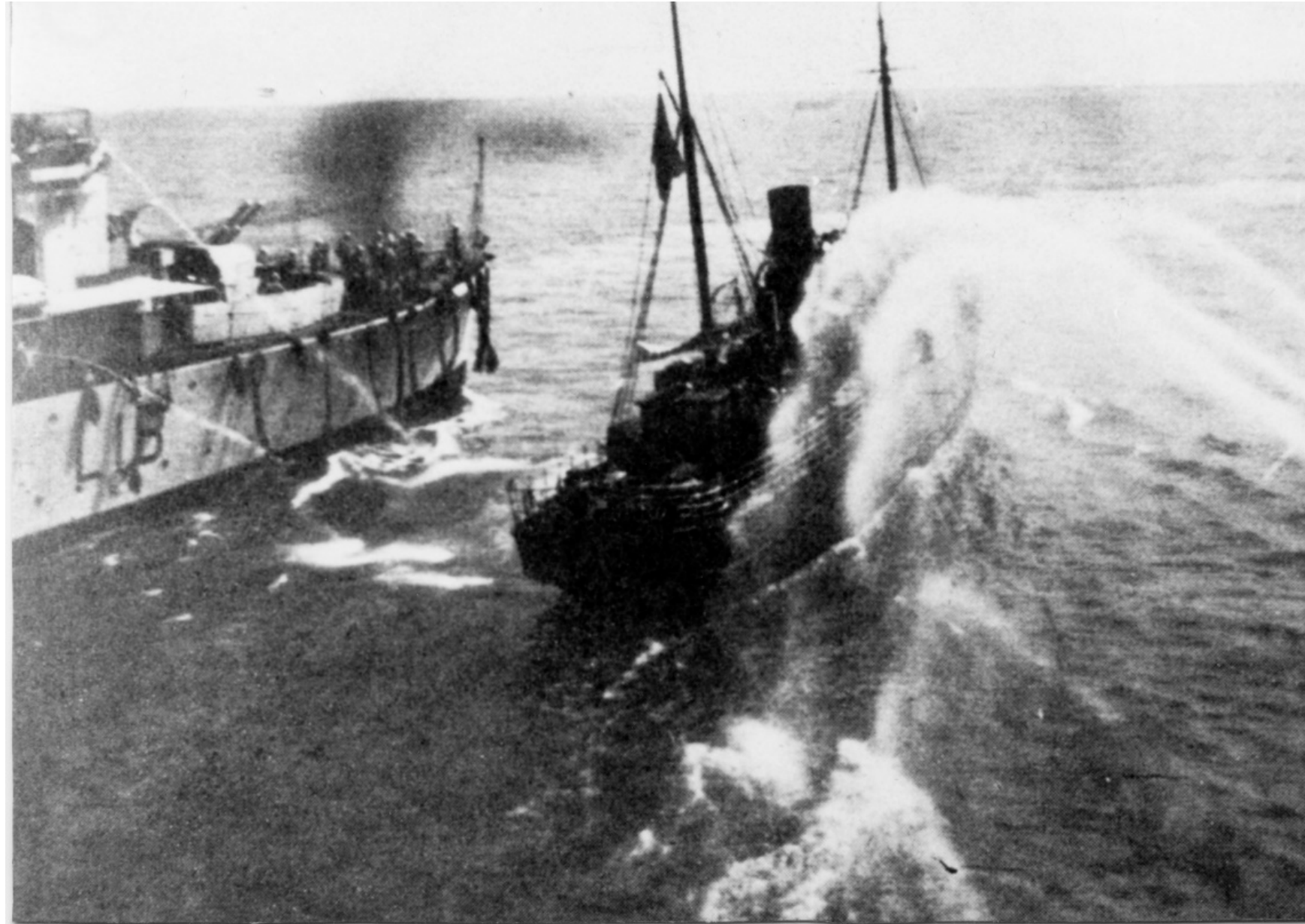
Capture of 'Hatikvah'

- British destroyer HMS Venus capturing the illegal immigrant ship 'Hatikva' on 17 May 1947, north of Rosh Hanikra.
- The ship, that sailed from Italy on May 8, 1947 with 1,414 illegal immigrants, surrendered after a fierce battle, in which the British used water cannons (pictured) and tear gas.



Capture of 'Yehuda Halevy'

- 'Yehuda Halevy' sailed from Algiers in May 1947, with 399 illegal immigrants
- On May 31, off the coast of Israel, British destroyers rammed the ship and took control of it, spraying jets of water and using tear gas
- The ship was towed to the port of Haifa and the immigrants were deported to Cyprus



The Drama of the 'Pans' (Pan York, Pan Crescent)

- **The 'Pan' ships, 'Kibbutz Galuyot' and 'Atzmaut', were the largest of the Ha'apala ships, carrying a total of 15,236 illegal immigrants, an impressive statement of the organization's capability**
 - At the same time, the struggle over the partition plan was being waged at the United Nations.
- **The ships set sail from Burgas, Bulgaria, on December 27, 1947.**
- **On the orders of the political leadership, the ships avoided a confrontation with the British and followed the British directly to Cyprus.**
 - The fear was that a confrontation with the British would sabotage the effort to implement the November 29 resolution.
- **Ben-Gurion's order was sent to the ships by a ciphered message.**

The Drama in the Messages

- **David Ben-Gurion sent a message to Yossi Harel, the Haganah commander, aboard the Pan York :**
“if the enemy proposes to the two great [Pan ships] to go straight to Cyprus, you must answer and do: ‘We have turned to the Land of Israel, which was promised by God to Israel and reaffirmed by the United Nations, but if you intend to interfere with our journey, we will go to Cyprus, being sure that we will soon reach our liberated land. Give us the course to Cyprus and we’ll follow you’.
- **The message was sent to the Mossad for Aliyah Bet HQ in Italy on December 29, 1520, resent on December 29, 1550**
- **The message was relayed through the Mossad station in Italy; the message reception by the Pan ships was delayed almost 24 hours due to communications difficulties.**

The British admiral knew about Ben-Gurion's message before Yossi Harel, the Haganah commander

- **On Monday, December 30, 1944, Rear-Admiral Simonds-Taylor, the British Squadron commander, aboard the light cruiser HMS Mauritius, received the following message from the British Military Commander in Palestine, classified as "Top Secret":**
"received from reliable high level source that the Jewish Agency have wirelessed instructions to the Pan. ships that requests or orders issued by Royal Navy including diversion to Cyprus are to be obeyed... "
- **Was the source of the British information the interception of the message sent from Tel Aviv to Italy, 23 hours earlier, and the deciphering its content?**
- **This information had a decisive impact on the conduct of the British Navy.**
- **The British believed that taking control of the ships by force, without material damage and many losses, was almost impossible, and therefore they gave the squadron commander freedom of action to avoid confrontation.**

Summary

British intelligence superiority was based on deciphering the Haganah ciphers

- **The British decoded the Haganah's ciphers as early as 1939, and from 1942 onwards. The Haganah's radio traffic was the main source of British intelligence**
- **The British 1946 White Paper, whose purpose was to prove that the Jewish Agency was a terrorist organization, led to the changing of the Haganah ciphers, and the British found themselves in an "Intelligence Blackout"**
- **The main achievement of the British after that was to break the ciphers of the Mossad for Aliyah Bet (Gideon radio network), running illegal immigration activities**
 - The radio communication of the illegal immigrant ships was the British main information source; deciphering these transmissions led to seizing of most of the illegal immigrant ships.

Since activation of the Palestine Patrol in September 1945, only six of the 57 illegal immigrant ships managed to break the British naval blockade

● **Hannah Szenesh**

- Due to a malfunction, there was no radio traffic to the ship. Communication was renewed only prior to landing.

● **Shabtai Luzinsky**

- Sailed in 'wireless silence', radio communication was activated only prior to landing,
- The ship was intercepted by a British plane, but the immigrants landed on Nitzanim Beach before the British fleet arrived.

● **Aliyah**

- Due to a malfunction, there was no radio communication to the ship. Communication was renewed only prior to landing
- The ship was intercepted by a British plane, but a British destroyer 'confused' it with the ship Kadima, which sailed nearby and was seized.

● **Hachayal Haivri, Amiram Shochat, Haportzim**

- British destroyers intercepted the ships at sea, but they were not identified as illegal immigrant ships.

The ciphers underwent a fundamental transformation after the establishment of the State of Israel

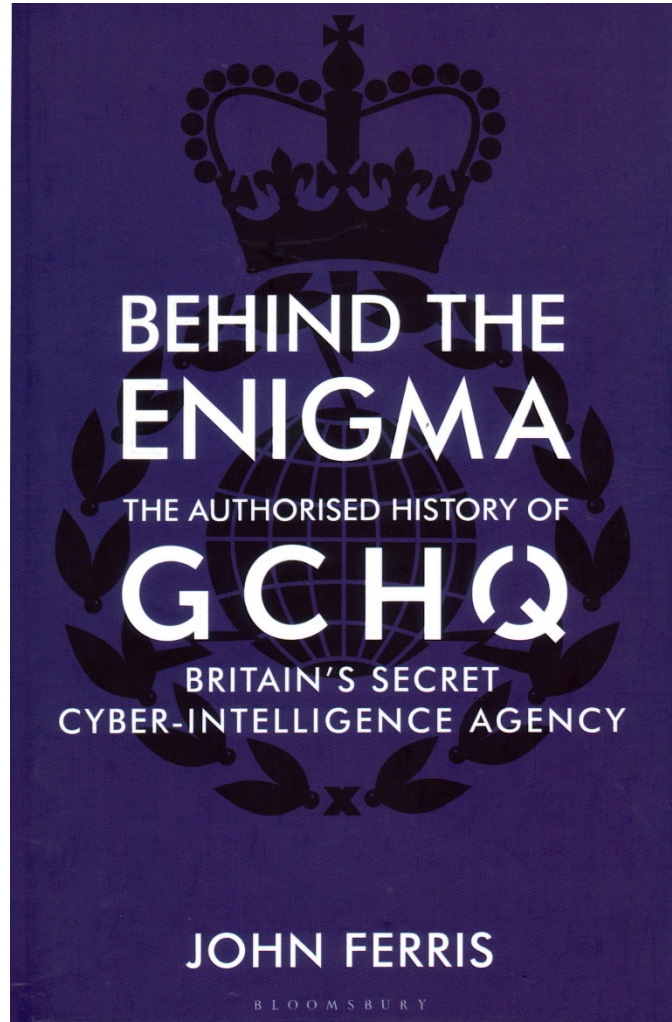
- **Jewish experts were recruited from South Africa, and laid the foundations of communication security in the IDF:**
 - Shaul Bar-Levav.
 - Meir Shapira.
- **In October 1948, the Haganah's ciphers were abolished, and new ciphers were put into use.**
- **A special unit was established for cipher and cipher keys production.**

The conclusions: once bitten, twice shy

- **Intelligence superiority is important, but it is not the be-all and end-all.**
- **One who trusts ciphers, puts his life in its hands.**
- **Trust in ciphers should be limited, in the sense of "respect him and suspect him".**

Additional Information

John Ferris, *Behind the Enigma: the Authorised History of GCHQ, Britain's Secret Cyber-Intelligence Agency*, Bloomsbury, 2020



Daniel Rosenne, *British Intelligence Superiority: Breaking Haganah Ciphers, The Association for the Commemoration of the Fallen Soldiers of the IDF Signal Corps*, 2024 (Hebrew)

English translation, 2026:
[https://www.amutakesher.org.il/Uploads/dbsAttachedFiles/British Intelligence Superiority in Palestine 1.0\(1\).pdf](https://www.amutakesher.org.il/Uploads/dbsAttachedFiles/British_Intelligence_Superiority_in_Palestine_1.0(1).pdf)

[https://www.amutakesher.org.il/Uploads/dbsAttachedFiles/British Intel Superiority 1.0.pdf](https://www.amutakesher.org.il/Uploads/dbsAttachedFiles/British_Intel_Superiority_1.0.pdf)



Thanks

© The Association for the Commemoration of the Fallen Soldiers
of the IDF Signal Corps, Yahud-Monoson, Israel, 2025

www.amutakesher.org.il