

M43

Revision date: 28 March 2012
© Numbers & Oddities
www.numbersoddities.nl

Original texts were published
in WUN newsletters in the
period 1995-1998.

CJI - WJI link

M4W - RK2 link

C37A - 6XM8 link

& related links



ENIGMA assigned M43 to three Israeli Intelligence links but did not assign the code to a number of other related links. The ENIGMA code has been deleted now but we will use it here for clarity sake. Note that these stations are history now, at least on HF.

M43 stations

C37A	Israeli Intelligence, Tel Aviv
6XM8	German Intelligence, Bonn
CJI	Israeli Intelligence, Tel Aviv
WJI	Italian Intelligence, Rome
M4W	Israeli Intelligence, Tel Aviv
RK2	Russian Intelligence, Moscow

Related stations

RSB1	
TFB	Israeli Intelligence, Tel Aviv
CAM	Israeli Intelligence, Tel Aviv
CIF9	
PTI2	
KWO	Israeli Intelligence, Tel Aviv

C37A & 6XM8

These two stations were the most active in the net. They had a daily schedule, 7 days a week, which normally started at 0430 UTC and continued nonstop until 1945 UTC (Mo-Fr) or until 1530 UTC (Sat & Sun). Modes used were ARQ-E 288 Bd and Baudot telegraphy at 100 Bd, which is used for operational procedures only. Traffic in ARQ-E was always encrypted, using a very effective combination of encryption and data compression.

C37A is located in Israel, not very far from Tel Aviv. This was checked out by locals in the outskirts of Tel Aviv (sig. rep. was 59+20dB and no fading on the signal during lousy conditions) and also confirmed with the help of professional grade DF-equipment.

6XM8, the other end of the link, is located in Germany, probably not more than 100 km from Bonn. Although we have no proof, all the data gathered hints at a station run by the German intelligence service (BND). Monitors in the Bonn area, living very close to the German MFA-building and the Israeli embassy, gave the station a rather weak ground wave signal. This more or less rules out involvement by either of the two installations, which both have huge HF antennae on the roof. However various attempts were conducted to DF the station and each time Bonn appeared to be the source of the signal. The most likely transmitter site is the region northwest of Bonn, bordering with Belgium. This region is packed with military and other dubious installations, and the ideal place for such a low profile operation. We think the site may be located near the town of Monschau, in a place called Hoefen. The BND is known to have a very large monitoring installation in Hoefen.

Although it would appear strange to use a monitoring station for transmission purposes, the BND seems to do just that (eg.the now closed DEA47 in Husum), using the name "Bundesstelle für Fernmeldestatistik" as a cover.

The 6XM8 transmitter site seemed to be used by the BND number stations (eg. "Kilo Whiskey"), as well as a couple of other ARQ-E outlets, running at 288, 192 and 96 Baud, always encrypted. Operational messages were sent in CW.

The German stations used the following frequencies:

13903 kHz, ARQ-E-96, 14950 ARQ-E-288, 15641 ARQ-E-288, 16327 ARQ-E-96, 16350 kHz, ARQ-E-288, 18768 ARQ-E-288, 18772 ARQ-E-288, 20950 ARQ-E-192

These links seem to be directed to other partner intelligence services of the German BND.

The messages sent by C37A to Germany consisted of encrypted English text or 5 LGs which are also encrypted using the online compression/encryption algorithm. You can tell C37A and 6XM8 apart by looking at the shift. The Israeli side used 330-340 Hz on both ARQ-E and Baudot, whereas the German side used a narrow 190 Hz. The Israelis transmitted at 100.87 Bd and the Germans used exactly 100 Bd Baudot.

C37A/6XM8 frequency list:

Frequency	Channel	Callsign	Mode
7569.50	(??)	C37A	ARQ-E-288/ITA-2 100.87
9208.00	(53)	6XM8	ARQ-E-288/ITA-2 100
10348.00	(54)	6XM8	ARQ-E-288/ITA-2 100
10749.50	(??)	C37A	ARQ-E-288/ITA-2 100.87
11434.50	(??)	C37A	ARQ-E-288/ITA-2 100.87
12224.50	(??)	C37A	ARQ-E-288/ITA-2 100.87
12276.00	(56)	6XM8	ARQ-E-288/ITA-2 100
13073.50	(25)	C37A	ARQ-E-288/ITA-2 100.87
13419.00	(57)	6XM8	ARQ-E-288/ITA-2 100
14379.50	alternate during QRM	C37A	ARQ-E-288/ITA-2 100.87
14386.50	alternate during QRM	C37A	ARQ-E-288/ITA-2 100.87
14390.50	(??)	C37A	ARQ-E-288/ITA-2 100.87
14398.00	alternate during QRM	C37A	ARQ-E-288/ITA-2 100.87
15688.00	(59)	6XM8	ARQ-E-288/ITA-2 100
16312.50	(28)	C37A	ARQ-E-288/ITA-2 100.87
16457.00	(60)	6XM8	ARQ-E-288/ITA-2 100
17387.00	(61)	6XM8	ARQ-E-288/ITA-2 100
17422.50	(??)	C37A	ARQ-E-288/ITA-2 100.87
17427.50	(??)	C37A	ARQ-E-288/ITA-2 100.87
17437.50	(??)	C37A	ARQ-E-288/ITA-2 100.87
18547.50	(??)	C37A	ARQ-E-288/ITA-2 100.87
18557.50	(??)	C37A	ARQ-E-288/ITA-2 100.87
18275.00	(62)	6XM8	ARQ-E-288/ITA-2 100
20465.50	(??)	C37A	ARQ-E-288/ITA-2 100.87

The following traffic from C37A to 6XM8 shows that decisions are made on the Israeli side of the link: 1255 UTC 12 May 1995 13072.5 kHz. (C37A was having serious problems with encryption device/no synch. possible)

*it is ok with me
no hard feelings
we will try again and if it wont work
i will a ask prommuission to qrx
ok///zar
ok ok ok
(--- THEN TO ARQ-E-288 BUT NO SYNCH WITH '6XM8'---)
(--- BACK TO BAUDOT---)
ok ok ok,
ok ok
but pls pls as as as
i have to get aprovel
ok ok ok, pls as
tks tks tks
as 5 m
(--- PAUSING FOR A COUPLE OF MINUTES ---)
good news
we can close now
it was a pleasure working with you
ok ok
many thanks and regards
xxkk
i dont understand 88
(--- PAUSING FOR ABOUT 2 MINUTES ---)
ok
to you too
gb gb gb gb gb gb
(--- S. OFF ---)*

The Israelis had problems with their equipment very often. In August 1995 the link was down for several weeks due to technical problems with the encryption device. They were back to normal on 23 August 1995.

CJL & WJI

CJL was a station which is listed in many publications as the Cypriot MFA in Nicosia, however the user is again one of the Israeli intelligence services.

WJI, the other end of the link is a station located in Italy, probably somewhere in the north-eastern part of the country. This was indicated by rough DF-analysis and propagation characteristics. The user is probably one of the Italian intelligence services. There are normally 3 skeds per day, with limited weekend activity. From Monday to Friday you can hear both stations at 0700, 1130 and 1500 UTC. Saturday normally had 1 or 2 schedules only.

The regular frequencies in use were 16339.5 kHz (CJL) and 17526 kHz (WJI). Modes used are ARQ-E-96 with a 4 character rep. cycle and 100 Bd Baudot for the call-up procedure.

