

①

1956 begin (Nasser's weapons of 1955) Cheren Keller

EAEC resigned in 1957
Bergmann Paris 1961 Dimona

1960-1963 USA Missile Program

Brookhaven - Livermore = Training

Worked
to take back
weapons

French help linked to Jews in US (This may have tipped off the Soviets)

US Inspector of Dimona + Question of French Aid led to WGM

Names
Shapiro

California Group - Sci. Att. Livermore

WGM - Perm. only non-Jews receiving hot products

who arranged?
who financed?

- Subsidiary firm - in Israel ("ex. isotopes")

Fox case

in Livermore

Connections within AEC

Ship chartered in Wash
DC: was access to techn.

Losses - dipl. round - (100 Kg)

visiting Dr. nuc. phys.

Hijacked shipment
of Evr Material

Five of 1 million dollars. check all banking records

who paid?

FIVE

Use of Bunn Pent
for IIs operation

Cover-up in AEC

False shipping docs to non-Israeli addresses

Ramen

Stopped inspectors opening up new avenue - gas centrifuge

Capture of centrifuge - urine samples - US - report suppressed

Uran. from Israel - Yellow cake from Argentina - So Af.

Research?

Small - non-Jewish

Remember Dormantism Inst. The Pledge

Need for intercepts.

Soviet aspect

All contacts of Sci Att - plus head of firm.

Consider many cases as evidence in preventing proliferation or opposition to doing anything

(2)

1956 - Discussions in Israeli leadership after 1955 Soviet-Arms deal
(Policy of Deterrence)

Relationship with the French as a result of 1956

Bergmann - R&D - ^① young scientists - Training in US

like Einstein

- Relationship w/ B.G. (Arab use of European missile experts)

Lead time² - + possible bombing of facilities² + embargo?

Costs:

100 million for bomb project

100 million for missile

20 m./yr

Brookhaven + Nahal Soreq (US!)

② Reactor - reasons for French help. Indo + Algeria =
Dimona.

③ Delivery System - Marcel Bloch = Seriche

Several paths theory ala Manhattan: viz. Sommerborn Institute +
Czech Arms deal. (The Pledge) eg ELAL

④ ^{New} Sommerborn in US - Compartmental. ^{coordinated by Sci} Attache-Herman
eg man working on delivery system to knowledge of nuclear
workshop. (He knew from design)

④a US technicians recruited
to work in Israel - Livermore (Fox)

Who falsified report? Top priority: W.B.M

Recruitment of US key personnel. Note Col. Outfit.

Set up NUMEC with Shapiro; why non-govt facility
Where did he get funds? Who authorized hot products?

Subsidiary firm in Zorael (Min of Def) and Ag cover

"Losses" cut through pond - 100 Kg.

Visiting "physicist" Israeli

MUF discovered - 1 million fine. Who paid?

Fine destroyed records

False shipping documents - no receipts - no checks
possible.

1971 Numec closed out - Shapiro nervous

Possible use of Soviets

Procured bomb material sent back. AEC informed
no action. Why?

Partly.

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(4) Sommerborn in US - compartmented. ^{New} Attaché-Herman

eg man working on delivery system to knowledge of nuclear work. (He knew from design)

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Problems

Inspection of Dimona

(3)

1957 requirement of EAEC - Uranium Division under Min of Def

a) increase in time between inspectors

b) Instead of Separation plant - Gas centrifuge

(Dutchman worked for Germans in Paris in WW II)

Case of the captured cylinders - Esc. Dr to US. Uranium Fission

Why was report suppressed?

c) Uranium extraction facility at Auel.

d) Yellow Cake from Argentina

e) Uranium Ores from South Africa. (fr Israeli Technology)

f) Liberian Freighter - 20 Tons of uranium processed material. From No. Sea to Med. Who start off investigation?

Trind mores:

Air Force Officer

1965

Tulip man - 1st Head of Division - secretly transferred to

Institute No IV - highest award by Min of

Def Darym 1971

Top Soviet Agent - can pinpoint people for Israelis

1/2 get taken without having to

recruit.

④

1/

Deterrence + Reversal = Military Superiority

Atmosphere: ① Promise from the Acheson 1955 Arms Deal

② Belief in Technology

③ Several Paths

④ Experience of Sonnenborn

⑤ Lead Time - Enlargo - Bombing interruption

⑥ Pressure of JFK Inspections - 1962/63

Notes:
use of EUR techn.
in missiles
1962-1967
SCVD
US Reactor?

II

General 1952 Henry Water - late 50's early 60's Training at Brookman etc

1957 - critical 1964

Facts: ① 100 million for French Reactor at Dismantle - no research

→ purpose - Under Min of Def - Bergmann (resignation) ¹⁹⁵⁷

② 100 million for Jericho Missile - Known nuclear
we had design (600 million over 10 yrs - 1/2 yr's
budget) (Reason for French Aid)

③ Nuclear Physicist from Livermore + sudden rift of US Tech.

④ Shortcuts of Uranium: Argentina ^{Yellow} Cuba, South Africa,
Domestic production at Areal.

Hijack of nuclear material

⑤ Experiments in Gas Centrifuge (Results of Testing)

⑥ California Am. Soc. Airl program

⑦ Hijacking

⑧ Resistance to Inspections - no NPT-

⑨ Interest in Gas Centrifuge.

Min of increase in
time between
inspections

III

Dangers: ① Anti-Semitism?

② Will spur real efforts w/ perhaps Soviet Aid?

③ Make more difficult aid to Israel?

④ Idea that US responsible?

⑤ Encourage other small countries to go nuclear?

⑩ Uranium Transfer of Personnel

⑪ Warhead of Jericho

⑫ Elmer Wakenen

Bergmann
Tulipman
Herzberg
AF General

④
III

- Facts NUMEC
- ① loss of WGM - 100th - by NUMEC
 - ② Shapiro's background
 - ③ subsidiary in Israel
 - ④ visiting Israel: Scientist
 - ⑤ Fire at NUMEC
 - ⑥ Shapiro warned of investigation
 - ⑦ Intense resistance of AEC to investigation

IV

Questions:

- Who authorized NUMEC to set material as 1st - Civ Supply?
- Who gave money to start NUMEC?
- Who paid the fine?
- Who sponsored the Urin Sample report?
- Who falsified the Fox report?
- Who was against investigation?
- Who was the "Proble Physicist"? (background)
- What records were destroyed in the fire?
- Who warned Shapiro?
- What was reason for shipments of radio-active material - into US?
- Who warned Crovelli to knock them off?
- Why was investigation of hijacking closed off by West German?

(Please details re fire)

(simony - full Henrich contacts in AEC indicated Soviet not Israeli interest.)

(French operations certainly known to Soviet - Pasque Com)