

**LBJ LIBRARY DOCUMENT WITHDRAWAL SHEET**

<u>Doc #</u>	<u>DocType</u>	<u>Doc Info</u>	<u>Classification</u>	<u>Pages</u>	<u>Date</u>	<u>Restriction</u>
05	report	Intelligence report - Exempt per RAC, 09/00	C	3	8/20/65	A
<del>09</del>	<del>report</del>	<del>161117Z from Cairo</del> <i>open 12/28/07</i>	<del>S</del>	<del>2</del>	<del>1/17/65</del>	<del>A</del>
15	memo	Komer to McGeorge Bundy - Sanitized, 06/04 dup. #26, NSF, Files of Robert Komer, "Israel Security," Box 31 and #3, NSF, Files of Robert Komer, "Israel Security (Missile Development)," Box 32 <i>dup = 357, Papers of Komer, Chron Jan-June 64, Box 4</i>	S	2	3/10/64	A
18	report	"Recap of" - Exempt per RAC, 09/00	S	1	[1963]	A
18a	report	Brief on Capabilities- Exempt per RAC, 09/00	S	3	[10/63]	A
19	memo	William Morell to Robert Komer - Sanitized per RAC, 09/00 dup. #19a this file	S	1	2/24/66	A
19a	memo	dup., #19	S	1	2/24/66	A
19b	report	"Financial and Technical Difficulties..." - Sanitized per RAC, 09/00	S	18	2/66	A
24	cable	Intelligence Information Cable - Exempt per RAC, 09/00	S	4	1/22/65	A

**Collection Title** National Security File, Files of Robert W. Komer  
**Folder Title** "UAR Missile and Nuclear Program, December 1963-March 1966"  
**Box Number** 53

**Restriction Codes**

- (A) Closed by Executive Order 13292 governing access to national security information.
- (B) Closed by statute or by the agency which originated the document.
- (C) Closed in accordance with restrictions contained in the donor's deed of gift.

9/29/2004 *[Signature]*  
 Initials

**LBJ LIBRARY DOCUMENT WITHDRAWAL SHEET**

<u>Doc #</u>	<u>DocType</u>	<u>Doc Info</u>	<u>Classification</u>	<u>Pages</u>	<u>Date</u>	<u>Restriction</u>
<del>26</del>	<del>cable</del>	<del>Tel Aviv 873</del> Open 4/9/18 per RAC 2/18	<del>S</del>	<del>1</del>	<del>1/27/65</del>	<del>A</del>
<del>27</del>	<del>memcon</del>	<del>re Cubic Corporation</del> Open 4/9/18 per RAC 2/18	<del>S</del>	<del>2</del>	<del>4/29/65</del>	<del>A</del>
29	report	Intelligence Report - Exempt per RAC, 08/01	S	4	1/5/65	A
31b	report	Supplemental Information sanitized 12/28/07	S	2	[5/64]	A
31d	report	"Evaluation of the Israeli Estimate" dup., #33b this file sanitized 12/28/07	S	4	[5/64]	A
33b	report	dup., #31d this file	S	4	5/28/64	A
34	report	re UAR Missiles dup., #34a this file	S	4	5/22/64	A
34a	report	dup. #34 this file	S	4	5/22/64	A

**Collection Title** National Security File, Files of Robert W. Komer  
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9/29/2004

Initials

war  
Nuclear  
Program

~~SECRET~~

March 1, 1966

*UAE Nuclear  
x Israel Nuclear  
2*

RWK:

1. The attached cable on desalination is simply a response to Goldberg's request for comments on an idea Weisner planted with him so it's just a report on our thinking and not supposed to take us anywhere.

2. Symmes sees no problem in adding a sixth paragraph prohibiting discussion on this subject. I have written this in for you.

HHS

~~SECRET~~

Att: Draft cable to USUN New York  
drafted by Eunice Walker, ACDA/IR  
2/23/66

DECLASSIFIED  
E.O. 13292, Sec. 3.4  
By 19, NARA, Date 9-28-04

*Eunise Walker, Policy Reports Office.  
arms cont. e. wants a clearance  
on this telegram.*

*UAR Nuclear  
x Israel Nuclear*

# OUTGOING TELEGRAM Department of State

INDICATE:  COLLECT  
 CHARGE TO

~~SECRET~~  
Classification

FOR OCIT USE ONLY

3  
1

*OK as amended  
in last para  
Done 3/1/66  
12:15 pm  
H.H.H.*

Origin

ACTION: USUN New York

Info

INFO: US Mission GENEVA DISTO  
Amembassy CAIRO  
" TEL AVIV  
" MOSCOW  
" ROME

REF: USUN 3659; CAIRO's 2143

1. Possibility of assisting both Israel and UAR their nuclear desalination programs has been under review at inter-departmental level of Govt. Over past few months, considerable thought has been given to question of how U.S. cooperation with Israel and UAR on desalting might be used to help obtain from both ~~EE~~ Govts. acceptance of safeguards on all their nuclear facilities. As the only states in Near East area with nuclear potential, acceptance of safeguards by them would have wide significance and relevance to our efforts prevent proliferation nuclear weapons.

2. U.S. has cooperated with Israel in joint engineering feasibility study of large-scale nuclear-powered desalting project which should be available soon. FonMin Eban while here Feb. 7-9,

Drafted by: *gaw* ACDA/IR: EAWalker:cer:2/23/66  
Clearance: ACDA/IR-Mr. Kranich ACDA/ST-Mr. Graybeak ACDA/GC-Mr. Van Doren  
SOV-Mr. Toumanoff White House-Mr. Komer NR-Mr. I. *gaw* REPRODUCTION FROM THIS COPY IS PROHIBITED UNLESS "UNCLASSIFIED"  
NEA-Mr. Hare S/S- IO/UNP-Mr. *gaw* ~~SECRET~~  
SCE-Mr. Röllack

Classification

DECLASSIFIED  
E.O. 13292, Sec. 3.4  
By *19*, NARA, Date *9-29-04*

SECRET  
Classification

suggested time now appropriate for USG and Israel undertake study of project's financial implications. Should be borne in mind that economic feasibility of project not fully studied and extent to which U.S. could participate in project (estimated to cost \$200 million or more) not yet established.

3. Egyptians have financed feasibility study of smaller nuclear-powered, dual-purpose project done by British firm, and have officially requested U.S. support and cooperation in project. Here again, uncertain extent to which U.S. could participate financially.

4. In view recent indications <sup>officials</sup> Soviet/~~officials~~ favor IAEA safeguards on Dimona, (Tel Aviv's A-664, Moscow's 2566), we might wish explore possible role for Soviet Union in working toward Israeli-UAR acceptance safeguards.

5. We would therefore expect to ~~to~~ give continued consideration <sup>projects.</sup> Israeli-UAR/~~projects.~~ Both Israel and UAR already understand U.S. would make our assistance contingent on placing these specific projects under adequate safeguards. U.S. might, however, make assistance dependent, inter alia, on public agreement that all other existing and future nuclear facilities of each party also be subject to acceptance IAEA safeguards. Our preliminary analyses are that <sup>neither</sup> party likely accept such full <sup>likewise,</sup> safeguards coverage without other doing/~~likewise~~ and that U.S. financial assistance might have to be offered as inducement.

GP-1

END

6. This message FYI only. Contents should not be discussed with other governments

SECRET

at this time. Classification

*4 copy rich*

*30*

# INCOMING TELEGRAM Department of State

0114720

1966 FEB 17 PM 7:32

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Action  
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DE RUEHDT 166 0490015  
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R 172321Z

~~CONFIDENTIAL~~

FM USUN NEWYORK  
TO SECSTATE WASHDC (3659)

STATE GRNC  
BT  
~~CONFIDENTIAL~~ FEB 17

DISTO  
NON-PROLIFERATION.  
DEPTEL 1972.

- BUNDY-SMITH
- RATOR
- BOWLER
- DOWNMAN
- CHASE
- COOPER
- JESSUP
- SCHUBERT
- TOLSON
- WALKER
- MOODY

1. FORMER WHITE HOUSE SCIENTIFIC ADVISER, JEROME WIESNER, INFORMED GOLDBERG LATE 15 FEB THAT HE HAD RECENTLY BEEN APPROACHED ON TWO SEPARATE OCCASIONS BY AN EMINENT ISRAELI SCIENTIST WHO ALTHOUGH NOT A MEMBER OF GOVT IS A CONSULTANT TO GOI ON NUCLEAR AFFAIRS, AND BY FORMER EGYPTIAN OFFICIAL PRESENTLY TEACHING AT EITHER MIT OR HARVARD. SUBSTANCE OF THESE SEPARATE APPROACHES WAS THAT PROJECT LIKE THAT DESTINED FOR ISRAEL FOR NUCLEAR DESALINIZATION PROGRAM SHOULD BE OFFERED TO UAR. WIESNER BELIEVES PROPOSAL MAKES SENSE IN TERMS EGYPTIAN WATER NEEDS AND MIGHT OFFER CONSIDERABLE SIDE BENEFITS;

A. MIGHT CONTRIBUTE TO AGREEMENT TO LIMIT OR STOP PROLIFERATION OF WEAPONS IN MIDDLE EAST AND TO A RECIPROCAL REDUCTION OF TENSIONS. COMMENT. WE PRESUME IDEA WOULD BE TO ASK RECIPIENTS OF PROJECTS TO ACCEPT CONTROLS NOT ONLY OVER THE NUCLEAR PORTION OF DESALINIZATION PROJECTS BUT, ADDITIONALLY, OVER OTHER NUCLEAR FACILITIES AS WELL, E.G. DIMONA IN ISRAEL AND COMPARABLE RESEARCH FACILITIES IN UAR.

B. IT WOULD BE ATTRACTIVE IN TERMS OF BUILDING UP US PRESTIGE THROUGHOUT THE ARAB WORLD BY PUTTING US BEHIND SOMETHING WHICH IN SHEER SIZE ALONE WOULD RIVAL ASWAN DAM. WIESNER THOUGHT UAR MIGHT BE ATTRACTED TO PROJECT BOTH IN TERMS PHYSICAL NEEDS AND FOR PRESTIGE REASONS.

C. IT COULD DEFUSE JORDAN WATERS PROJECT WHICH, BY COMPARISON, WOULD SEEM TO BE OF RELATIVELY LESSER IMPORTANCE.

2. WOULD APPRECIATE DEPT COMMENTS.

GP-3

GOLDBERG  
BT

~~CONFIDENTIAL~~

DECLASSIFIED  
E.O. 13292, Sec. 3.4  
By *11* NARA, Date *9-29-04*

~~SECRET~~

Attachment



DEPARTMENT OF STATE  
WASHINGTON

INFORMATION COPY  
REFERRAL

4

RECEIVED  
McGEORGE BUNDY'S OFFICE

JAN 28 1966

*UAR - Nuclear*

IN REPLY REFER TO:

1966 JAN 28 PM 5 43

MEMORANDUM FOR MR. McGEORGE BUNDY  
THE WHITE HOUSE

Attached for your information and

files are copies of the following memoranda:

Two (2) copies of a memcon between H. Earle  
Russell, Jr., Officer-in-Charge, UAR/Syrian  
Affairs and Mostafa Kamel, Ambassador of UAR  
dated 1/21/66 re control of Nuclear Prolifera-  
tion in the Near East.

01 2 14 03-14 2001  
DEPARTMENT OF STATE  
EXECUTIVE SECRETARIAT

*for* *pw*  
Benjamin H. Read  
Executive Secretary

Attachment(s):

As Stated Above.

~~SECRET~~

Attachment

Attachment

~~SECRET~~

DEPARTMENT OF STATE

WASHINGTON



IN THIS MATTER

RECEIVED  
GENERAL INVESTIGATIVE DIVISION

JAN 28 1966

JAN 28 11 54 AM '66

MEMORANDUM FOR MR. GEORGE BUNNY  
THE MITT WOODS

INFORMATION COPY  
REFERRAL

Attached for your information and

are the copies of the following memoranda:

Two (2) copies of a memo from W. Earl  
Russell, Jr., Chief-in-Charge, UAR/Syria  
Alaska and Moscow (UAR), Ambassador of UAR  
dated 1/21/66 re control of Nuclear Prohibi-  
tion in the Near East.

EXECUTIVE SECRETARIAT  
DEPARTMENT OF STATE  
OUT

1966 JAN 28 PM 3 59

*Handwritten initials*

Attachment 101

As stated above.

Attachment

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2051  
NEA:NE:HERussell:rv  
1/24/66

~~SECRET~~

11

Department of State

RECEIVED  
McGEORGE BUNDY'S OFFICE

4a

Memorandum of Conversation

1966 JAN 28 PM 5 43

Date: January 21, 1966

Subject : Control of Nuclear Proliferation in the Near East  
Participants: His Excellency Mostafa Kamel, Ambassador of the U.A.R.  
H. Earle Russell, Jr., Officer-in-Charge, U.A.R./Syrian  
Affairs

COPY 710-PSR

1966 JAN 25 AM 10 51

Copies To : NEA - 1 Amembassies CAIRO, TEL AVIV,  
NE - 3(2cc) LONDON, MOSCOW,  
INR - 8 BONN, PARIS, VIENNA for  
SCI - 2 IAEA, USUN NEW YORK  
ACDA - 2 WE - 3  
AEC - 2 SOV - 2  
White House - 2 IO - 2

39

\* \* \* \* \*

Ambassador Kamel said he sent periodic assessments to President Nasser on issues uppermost in U.S. official thinking. His most recent assessment completed January 21 dealt with dangers of nuclear proliferation in the Near East and the need to take steps to meet this threat. In his report he stressed:

1. Opposition to nuclear proliferation was a fundamental policy of the United States. Under no foreseeable circumstances would the U.S. help Israel to obtain nuclear weapons. While he could vouch with certainty for the attitude of the U.S. Government, he could not do so for individual Americans or commercial firms, some of which he believed were cooperating with Israel in the nuclear field.
2. Within a few years both Israel and the U.A.R. possibly would be able to make or acquire nuclear weapons. The acquisition of a nuclear capability by countries of the Near East would create a situation far more dangerous and complex than the present arms race. It was time now to seek means to prevent this eventuality.
3. There was growing concern throughout the U.S. Government about nuclear activities in the Near East. The time to think out loud on this delicate issue was fast approaching.

DECLASSIFIED

Authority NLJ/RAK 032-053-2-2  
By Ag NARA, Date 9-29-04

~~SECRET~~

GROUP 3

Downgraded at 12 year intervals;  
not automatically declassified.

DEF 18-6 NEAR E

2

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- 2 -

4. Possible approaches to nuclear control in the Near East might include:

a. The exploration of the Shepilov proposal for conventional arms control (circa 1958).

b. A bilateral U.S.-Soviet agreement to deny nuclear weapons to the area.

c. Failing this, a unilateral Western prohibition on provision of nuclear materiel or technology to the area, with subsequent invitation to the Soviet Union to join the arrangement.

d. Big power nuclear control arrangements involving the United Nations or IAEA.

The Ambassador believed it important to prepare Nasser's mind for eventual discussion of the nuclear control problem in the Near East. He felt that a direct approach during the next few months without adequate preparation was unwise.

~~SECRET~~

78  
NEA:NE:HERussell:rvc  
1/24/66

~~SECRET~~ II

46

Department of State

Memorandum of Conversation

DECLASSIFIED  
E.O. 13292, Sec. 3.4  
By 15, NARA, Date 9-28-04

Date: January 21, 1966

Subject : Control of Nuclear Proliferation in the Near East  
Participants: His Excellency Mostafa Kamel, Ambassador of the U.A.R.  
H. Earle Russell, Jr., Officer-in-Charge, U.A.R./Syrian  
Affairs

Copies To : NEA - 1 Amembassies CAIRO, TEL AVIV,  
NE - 3(2cc) LONDON, MOSCOW,  
INR - 8 BONN, PARIS, VIENNA for  
SCI - 2 IAEA, USUN NEW YORK  
ACDA - 2 WE - 3  
AEC - 2 SOV - 2  
White House - 2 IO - 2

39

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GROUP 3  
Downgraded at 12 year intervals;  
not automatically declassified.

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1966 JAN 25 AM 10 51

DEF 18-6 NEAR E

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- 2 -

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~~SECRET~~

# OUTGOING TELEGRAM Department of State

09049  
6

INDICATE:  COLLECT  
 CHARGE TO AEC

LIMITED OFFICIAL USE

83

Origin

ACTION: Amembassy, CAIRO 7022

MAY 17 11 45 AM '65

AEC

Info:

INFO: Amembassy, VIENNA 2468

*non nuclear*

L

Ref: Cairo's tel 3813 to Dept.

NEA

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INR

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WHB

INT

Ref Hedayat's comment that UAR reps at Geneva ~~1964~~ Conference in 1964 indicated agreement for IAEA inspection proposed Borg El Arab nuclear power-desalting project, U. S. officials who talked with UAR reps in Geneva certain that no mention made of UAR willingness accept IAEA safeguards at that time. Perhaps reference was to UAR vote at February 1965 IAEA Bd. Gov. meetings in favor of proposed revised IAEA safeguards document covering power reactors. Although vote not construed as necessarily implying UAR acceptance of IAEA safeguards for UAR nuclear desalting plant, obviously would be step forward if UAR willing put project, if constructed, under IAEA safeguards.

Ref Hedayat's request for status report of 3-man U. S. team that visited UAR November to consult proposed Borg El Arab project, report in final stages preparation. Delay result time required collate and analyze extensive data and prepare report, and not repeat not due any political reasons as suggested by Hedayat. Suggest this be made clear Hedayat or other appropriate UAR official.

RUSK

END

- BUNDY-SMITH
- BATOR
- BOWDLER
- BOWMAN
- CHASE
- COOPER
- HAYNES
- JESSUP
- LEIN
- KOMER
- MOODY
- REEDY
- SAUNDERS
- THOMSON

Drafted by: <i>mm</i>	Telegraphic transmission and classification approved by: <b>SCI - Charles W. Thomas</b>
USAEC; RNS Lawson: jmb 5/13/65	
USAEC: MBK <i>Kratzer</i>	NEA - Mr. Sterner    SCI - Mr. Salmon    OES - Mr. Fennemore

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INCOMING TELEGRAM *Department of State*

7

46

LIMITED OFFICIAL USE

Action CONTROL: 00384  
SCI RECD: MAY 1, 1965, 9:20 AM  
Info FROM: CAIRO  
L ACTION: SECSTATE 3813  
FE  
NEA  
IO  
NSC  
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*Mar nuclear*

SMITH  
BATOR  
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JOHNSON  
KEENE  
KLEIN  
KOMER  
MOODY  
REEDY  
SAUNDERS  
THOMSON

LIMITED OFFICIAL USE MAY 1

SUBJECT: 1. UAR AND IAEA INSPECTION; 2. REPORTED UAR AEC VISITORS TO CHINA.

IN DISCUSSION APRIL 29 WITH UAR AEC DIRECTOR MR. SALAH HEDAYAT, ARRANGED SPECIFICALLY TO DISCUSS THE SUBJCT ITEMS, THE FOLLOWING INFORMATION WAS OBTAINED BY SCIATT:

1. TO DIRECT QUESTION OF UAR'S WILLINGNESS ACCEPT IAEA INSPECTION FOR PROPOSED BORG EL ARAB POWER/DESALINATION REACTOR, HEDAYAT REPLIED THAT IN PRINCIPLE UAR IS COMPLETELY IN ACCORD WITH AND WILLING ACCEPT IAEA INSPECTION, OR IN EVENT INSPECTIONS WERE NOT BY AN IAEA AGREEMENT, UAR WOULD BE WILLING ENTER INTO BILATERAL AGREEMENT SIMILAR TO THAT BETWEEN US AND INDIAM HEDAYAT WAS ADVISED THAT DURING MR. TALBO'S DISCUSION WITH UAR PRESIDENT AND FOREIGN MINISTER, TALBOT WAS TOLD THAT UAR REPRESENTATIVES AT GENEVA CONFERENCE IN SEPTEMBER 1964 HAD INDICATED AGREEMENT FOR IAEA INSPECTION, AND HEDAYAT WAS ASKED ON WHAT OCCASION OR DATE SUCH PRONOUNCEMENT MADE. HE REPLIED THIS INDEED TRUE ALTHOUGH HE COULD NOT OFFHAND RECALL EXACT OCCASION AND HE WOULD TRY LOCATE WRITTEN REFERENCE TO SUCH STATEMENT. MR. HEDAYAT SAID THAT HE HAD SEVERAL TIMES PREVIOUSLY STATED UAR WOULD ACCEPT IAEA INSPECTION HOWEVER, THE OCASION OF DISCUSSION ON APRIL 29 WAS FIRST TIME SCIATT HAD HEARD HEDAYAT MAKE A DEFINITE STATEMENT ON THIS SUBJECT.

HEDAYAT SAID THAT DURING 1964 IAEA MEETING AT VIENNA, FOLLOWING GENEVA MEETING, AN IAEA SAFEGUARD AGREEMENT SATISFACTORY TO ALL MEMBERS HAD NOT REALLY BEEN OBTAINED, THAT UAR MAY NOT BE IN COMPLETE ACCORD WITH THE FINAL WORKING AGREEMENT PREPARED BY IAEA COMMITTEE. IT WAS FOR THIS REASON HE SAID THAT A BILATERAL AGREEMEN WOULD BE ACCEPTABLE UNTIL SUCH TIME AS SATISFACTORY IAEA AGREE- MENT WAS FORMULATED.

2. THERE HAVE BEEN RECENT LOCAL PRESS REPORTS THAT UAR HAS SENT AN AEC DELEGATION TO CHINA FOR TECHNICAL DISCUSSIONS AND VISITS INCLUDING, AS NEWS REPORTS STATED, BRIEFINGS ON NUCLEAR WEAPONS

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-2- 3813, MAY 1, FROM CAIRO

INFORMATION AND VISITS TO CHINESE NUCLEAR WEAPONS PROVING GROUNDS. WHEN HEDAYAT WAS ASKED WHETHER UAR TEAM HAD IN FACT BEEN SENT HE SAID NONE HAD BEEN SENT, BUT WAS VAGUE ON WHETHER IT WAS EXPECTED CHINA WOULD FURNISH UAR WITH WEAPONS DESIGN DATA IF AND WHEN SUCH A DELEGATION DOES GO.

WHEN SCIATT RAISED THE QUESTION REGARDING REPORTED CHINESE COOPERATION AND VISITS HEDAYAT PLEADED NOT TO "CLOUD THE UAR-US TECHNICAL DISCUSSIONS AND BUSINESS CONSIDERATIONS INVOLVING THE BORG EL ARAB PROJECT CURRENTLY IN PROGRESS WITH POLITICS." (REFERENCE EMBTEL 3803, EMBTEL 3803, APRIL 30.) WESTINGHOUSE HAD EARLIER IN DAY OF APRIL 29 JUST FINISHED THREE-DAY SERIES OF DISCUSSIONS ON BORG EL ARAB PROPOSAL AND HEDAYAT SEEMED SOMEWHAT CLAMORED THAT PERHAPS PURPOSE OF THE QUERY REGARDING REPORTED CHINESE VISIT WAS RELATED TO AND MAY POSSIBLY INFLUENCE US INTEREST IN BORG EL ARAB PROJECT.

3. FINALLY HEDAYAT REQUESTED THE STATUS OF REPORT OF THREE-MAN US EVALUATION TEAM ON DESALTING WHICH VISITED UAR DURING NOVEMBER 1964. HE SAID HE BELIEVED THERE HAS BEEN PLENTY OF TIME TO WRITE A TECHNICAL REPORT AND IF IT HAS NOT YET BEEN RELEASED IT MUST BE FOR POLITICAL REASONS.

COMMENT: IT IS OBVIOUS TO SCIATT THAT UAR PLACES VERY HIGH PRIORITY ON OBTAINING A LARGE-SIZE NUCLEAR REACTOR AT THE EARLIEST OPPORTUNITY. UAR WOULD CERTAINLY CAPITALIZE ON PRESTIGE ASPECTS OF SUCH AN ACQUISITION AND COULD BE EXPECTED TO PROPAGANDIZE THE NUCLEAR WEAPONS FUEL PRODUCTION POSSIBILITIES EVEN THOUGH AN INSPECTION AGREEMENT WERE SIGNED.

CFN 1. 2. 29 1. 1964 29 1964 2. 3803 30 29 3. 1964

BATTLE

LIMITED OFFICIAL USE

/ACTION

DEPARTMENT OF STATE

# AIRGRAM

DEF 12 UAR  
XR SCI 11 UAR  
XR FSE 12 UAR  
FOR RM USE ONLY

SCI-4

RM/R	REP	AF
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E	P	IO
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TR	XMB	AIR
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OSD	USIA	NSA
21		3
	AEC	NSC
	8	6

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A-771

UNCLASSIFIED

HANDLING INDICATOR

NO. \_\_\_\_\_

TO : Department of State

Info: Amembassy London; Amembassy Paris

FROM : Amembassy Cairo

SUBJECT: Egypt-Chicom Nuclear Weapons Cooperation

REF : London's Tel <sup>no</sup> 4227 to Dept; 174 to Cairo.

1965 APR 21 AM 11 42

8

RM/AN  
ANALYSIS & DISTRIBUTION  
BRANCH

DATE: April 21, 1965

London for AEC Nordlinger; Paris for AEC Friedman.

Although the reported Chicom assistance to Egypt for nuclear weapons technology cannot be definitely confirmed, the Minister of Scientific Research has publicly stated there is a program underway for the exchange of scientists and scientific information of all categories between both countries. Such exchange would presumably be non-military, however.

As regards the Qattara Depression studies, it is true that a team of German scientists has been in Egypt for the past several months expanding upon an earlier German study made on the utilization of the flow of water from the Mediterranean into the Qattara Depression for electrical power production. (See Cairo's A-889, June 10, 1964.)

See FSE 12 UAR

Information provided by U.S. scientists at UCRL on the estimated number and size of nuclear explosives for the canal digging has been furnished to the UAR Ministry of Power, under which the Qattara studies are being conducted, and it is believed this is the only such information which has been provided. To date, only studies of the Qattara project are being made. The only construction activity finished or underway in connection with the project is geological surveying and prospecting along proposed canal routes, and the construction of a small Qattara headquarters compound at El Alamein.

There have been repeated UAR news releases on the desirability of developing the Qattara Project, most being gross exaggerations of the status of the project as well as the electrical power capabilities.

For the Ambassador:

*J. C. Clark*  
John C. Clark, Scientific Attache

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FORM 4-62 DS-323

In  Out

- 29
- BUNDY-SMITH
- BATOR
- BOWMAN
- CHASE
- COOPER
- HAYNES
- JESSUP
- JOHNSON
- KEENE
- KLIEN
- KUMER
- MOODY
- REEDY
- SAUNDERS
- SAYRE
- THOMSON

Drafted by: SCIATT:JCClark/ab 4-16-65

Contents and Classification Approved by: ECON:JWMcDonald

Clearances:

~~SECRET~~

DEPARTMENT OF THE AIR FORCE  
STAFF MESSAGE BRANCH  
INCOMING MESSAGE

84419  
CALL REPORT  
FORM 12/54  
SERIAL

AF IN : 12728 (17 Jan 65) D/rph

ACTION: NIN-7

INFO : DIA-15 (23)

Pg 1 of 2

RC 01/17 JAN 65

JF/JF/JF

ADDED DIST:

ARMY-2, NAVY-2, CMC-9, JCS  
STATE-1, CIA-4, NSA-7 (25)  
(per Lt. Beasley, DIA, 17 JAN 65).

ROUTINE

161117Z

INFO.....SECDEF-5 ISA-9 IL-3 AE-3 SAAC-1 STATE-  
WHITE HOUSE-3 FILE-1 (26)TWC/CL  
NOTE: 358 & 294 NOT IDENTIFIED  
382 IS JCS IN 57337

FM USAIRA CAIRO UAR

TO CSAF WASH DC

!!27TH USAF FAG FT BELVOIR VA

DIA WASH DC

INFO USAFE

USCINCEUR

USCINCSRIKE MACDILL AFB FLA

SAC OFFUTT AFB NEBR

TAC LANGLEY AFB VA

BT

*now nuclear*

- ~~\_\_\_ BUNDY-SMITH~~
- ~~\_\_\_ BATOR~~
- ~~\_\_\_ BELK~~
- ~~\_\_\_ BOWMAN~~
- ~~\_\_\_ CHASE~~
- ~~\_\_\_ COOPER~~
- ~~\_\_\_ JESSUP~~
- ~~\_\_\_ JOHNSON~~
- ~~\_\_\_ KRENT~~
- ~~\_\_\_ KLEIN~~
- ~~\_\_\_ ROMER~~
- ~~\_\_\_ MOODY~~
- ~~\_\_\_ REEDY~~
- ~~\_\_\_ SANDERS~~
- ~~\_\_\_ SAYRE~~
- ~~\_\_\_ THOMSON~~

~~SECRET~~ C-1.

FOR AFNINDE AND AFNIAA.

REPORTS CAIRO INDICATE UAR ATTEMPTING OBTAIN 150-MEGAWATT NUCLEAR  
REACTOR TO BE USED AT BORG EL ARAB NUCLEAR POWER STATION TO BE  
CONSTRUCTED APPROXIMATELY 20 MILES SOUTHWEST OF ALEXANDRIA.

**DECLASSIFIED**  
Authority MLJ-032-053-2-4  
By ag/cbm, NARA, Date 9-17-07

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JAN 18 1965

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DEPARTMENT OF THE AIR FORCE  
STAFF MESSAGE BRANCH  
INCOMING MESSAGE

AF IN :12728 (17 Jan 65)

Pg 2 of 2

PROJECT SUPPOSEDLY BEING DEVELOPED FOR DESALTING AND ELECTRIC POWER PURPOSES. EMBASSY INFORMS THIS OFFICE BIDS HAVE BEEN REQUESTED FROM 3 U. S. FIRMS; NAMELY, WESTINGHOUSE, GE AND AMF. ALSO WEST GERMANY AND UK HAVE BEEN ASKED TO BID WITH MARCH 1965 AS DEADLINE DATE. REPORTEDLY THIS SIZE REACTOR HAS POTENTIAL OF PRODUCING FISSIONABLE MATERIALS WHICH COULD BE USED FOR DEVELOPMENT OF ATOMIC WARHEADS. THIS OFFICE FEELS EXTREME CAUTION SHOULD BE USED AS GREAT RISK INVOLVED IN US SUPPORTING THIS PROJECT WITH DISTINCT POSSIBILITY UAR WOULD USE FOR MILITARY PURPOSES. AMBASSADOR BATTLE PRESENTLY IN US FOR CONSULTATIONS AND INTENDS DISCUSS MATTER WITH STATE.

FOR FURTHER INFORMATION SEE EMBASSY CAIRO AIRGRAMS A-382, A-353 AND A-294.

GP-3

BT

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AFHQ FORM 0-309b  
JAN 62  
PREVIOUS EDITIONS OF

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war

missiles

1964 - 1966

~~SECRET~~

January 23, 1965

Mike -

Here's final wrap-up on Cubic matter you'd been concerned about. I'd say we're mighty clean.

On more important matters, I'm most distressed to hear of your resignation. We've had our natural differences over the years, given the different vantage points from which we operate, but I always enjoyed the jousting. I count on seeing you before you go.

R. W. Komer

Att. Deptel 627 to Tel Aviv

~~SECRET~~

DECLASSIFIED  
E.O. 13292, Sec. 3.4  
By 15, NARA, Date 9-28-04

*now missile* //

*file*

*UAR missile*

*12*

SECRET

October 23, 1964

MEMORANDUM FOR GOVERNOR HARRIMAN

Thanks much for the DNR memo on the UAR missile program. When I came down off the ceiling, my friend Tom Hughes and I agreed that a sparring match with you as referee was unnecessary if he would simply prod the intelligence community to produce some more poop.

Incidentally, I told Tom that his covering memo was offensively couched, largely irrelevant, told me nothing I didn't know and in general was a typical bureaucratic defense ploy by some of his people--who were obviously more interested in rebutting fancied criticism than in dealing with the problem. He stoutly denied, however, that he initialed it without reading.

I think you and Tom agree with me that it is highly important to have a better fix on the UAR offensive missile program, especially production and deployment. If State will merely join in prodding to this end, that's all I want.

R. W. Komer

cc: Director of Intelligence and Research,  
Mr. Thomas L. Hughes

SECRET

DECLASSIFIED  
Authority NLS/RAC 032-053-2-5  
By 4 NARA, Date 9-29-04

~~SECRET~~

DECLASSIFIED

Authority NLS/RAC 02-24(H176)  
By 16/4 NARA, Date 9-29-04

5/29/64  
TAB A  
13  
UAR missiles  
+ Israeli missile  
+ Eshkol

THE UAR/ISRAELI MISSILE RACE

The UAR Threat? Unable to get Soviet SSM's, Nasser had a few expatriate German scientists design two "homegrown" missiles, one a copy of the French Veronique sounding rocket, the other similar to the old German V-2. Neither has much guidance or warhead capacity, and we think Nasser is building some mostly for prestige reasons.

Israeli intelligence, however, has blown this threat up out of all proportion (just as our Air Force intelligence did with the Soviet bomber and then ICBM threat).

1. Israel claims UAR will have 1,000 missiles by 1969-70. Our NIE estimate is a few hundred at the outside. We don't see why Nasser would or could spend the huge sum needed to produce so much junk.

2. Israel first claimed UAR would have nuclear warheads, but we knocked this down by showing UAR nuclear capability as nil. Then Israelis talked radioactive wastes, but we showed this technically infeasible. Now it's "nerve gas". We say UAR can't produce it.

3. So we come down to an HE warhead. From our extensive know-how on calculating missile attacks, we can show that even giving UAR missiles greater payload, greater accuracy, greater number than Israel itself estimates, the UAR couldn't achieve military results.

4. Israelis then fall back on two psychological arguments. First, the Israeli electorate demands a counter to UAR missiles. We answer that the GOI should publicize how feeble UAR missile threat is. Second, Israelis claim their quick mobilization system might be upset during the first crucial 48 hours. DIA's demolition of this claim is appended.

Israel's Missile Program. The feebleness of the UAR threat adds to our suspicions Israel may be using it as cover to acquire a delivery system of its own. The Israelis know longer-range missiles have little military use without nuclear warheads. If Israel doesn't plan on nuclear warheads, then it is wasting an awful lot of money to drop a few thousand pounds of high explosive on Cairo.

At any rate, the risks to us from Israel going nuclear (undermines our whole non-proliferation policy) are matched by the risks to Israel (Arab pre-emption or Arab alliance with Moscow). This is why we feel so strongly we must try to head Israel off.

Attach. Memo dtd 5/28/64 for DepAsstSecDef(ISA)  
subj. Israeli Estimate of UAR Missiles (sgnd  
Frankel)

R. W. Komer

~~SECRET~~

war missile  
x core  
x Israeli nuclear

~~SECRET~~ - CANE

March 12, 1964

14

MEMORANDUM FOR JACK JERNEGAN

As I mentioned yesterday, the only kind of tacit arms limit which I see as having any chance of acceptance by both Israel and the UAR is a missile/nuclear trade-off. What I have in mind is the Egyptians telling us privately that they do not intend to build more than 60-100 of their present missile types. The Israelis in turn reassure us that they don't intend to go nuclear, and will not deploy SSMS.

I gather Secretary Rusk commented that there seemed to be little advantage to Israel in giving up something it had, i. e. a nuclear potential, for similar Egyptian self-denial of a non-existent nuclear potential. I think he's dead right. The only symmetrical deal would be for the UAR to deny itself something that Israel fears in return for Israel denying itself what worries the UAR most.

When it comes to verification, this is already taken care of on the Israeli side by our arrangements for private inspection. On the UAR side, I suspect that we could almost do without verification and rely on intelligence sources (could a 1000 or even a 500 missile force be hidden in Egypt?). But if we want even greater reassurance, why couldn't a few men in civilian clothes, speaking German and acting like Germans, be taken through Egyptian missile plants every year or so.

If the above approach commends itself, the time to try it out is now. Since the Israelis could hardly object to our using as leverage something they had already promised us (nuclear self-denial), the problem is in Cairo. I suspect that Nasser might just see merit in a proposition which (1) involves no public action or declaration; (2) increases his confidence that Israel won't go nuclear (since the US would have an even more powerful incentive, in Nasser's eyes at least, for preventing this); and (3) entails only minimal inspection. We ought to make this probe before there is any tanks decision, because along with the prospect of tanks, UAR self-denial would be a powerful added argument for dissuading Israel from going the missile route.

The chief flaw I see in this proposition is that it might give Nasser an exaggerated impression of the value of his missile force, certainly as a deterrent and possibly for preemption. I think we could offset this by (1) pointing out that Israel will go the missile route too, which greatly reduces the value of his deterrent; and (b) we don't see his missiles as being much of a military threat for many, many years, so he's not being asked to give up much. Why don't we do a prompt scenario along these lines?

R. W. Komer

~~SECRET~~ - CANE

cc: mag B

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Authority: NLS/RAC 032-032-1-2  
By: Jd/K. NARA, DAR. 9-29-04

~~SECRET~~

March 10, 1964

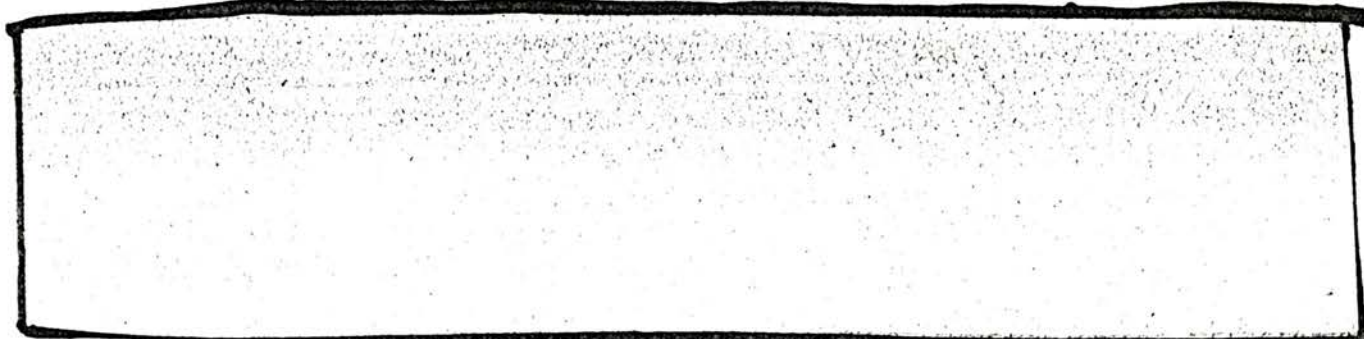
15  
near missile  
x Do see  
x Do need

Mac -

Since Israeli tank/missile matter may come up at lunch today, here's some ammo. US intelligence community has done some pretty thorough estimates.

Mid-range SSMs not much good without nuclear warheads. UAR has no nuclear potential, so it's crude home-made SSMs of little real military value. Israelis, on other hand, not only going for a much better missile but now have a functioning breeder reactor.

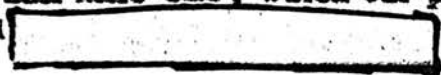
Entire manner in which Israelis secretly built Dimona, haggled with us about inspection, and now won't let us reassure Nasser adds to suspicion Israelis going step-by-step toward nuclear deterrent.



Little difference in US and Israeli estimates of feebleness of two present UAR missiles (very poor guidance, if any; very small warhead capacity). Our SNIE 30-4-63 of this December says their military value is "trifling", and estimates that UAR "unlikely to deploy more than a few hundred SSMs over next five years", and the figure could well be substantially less."

However, Israelis "estimate" Nasser will build 900-1000 by 1969-70. We see program of this size costing UAR fantastically, and even so, of little military value. Israelis admit missiles couldn't damage military targets but claim attack on this scale during first 48 hours could disrupt vital Israeli mobilization. DOD says this nonsense and so does SNIE 30-4-63. Could UAR salvo 1000 SSMs in three weeks much less two days? Rowen, who's studied matter, is categorical on this issue (and we know missilry, Israelis don't).

Israel on other hand seems to be going for a much better French missile with a 1500 lb. payload and a half mile CEP, which our people say makes most sense with a nuclear warhead



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By 16, NARA, Date 9-29-04

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2.

One simply cannot avoid the conclusion that, even if Israel hasn't finally decided on a nuclear/missile deterrent, it is certainly putting itself step-by-step in the best position to do so (indeed, why should it decide now). One can easily grasp Israeli logic--an absolute deterrent like this makes sense in a way. But it will certainly create problems for Israel and for us.

RWK

Attach.



(3) Cy. 11-5111 50-4-63 dtd 12/4/63, subj. The UAR Missile Program and its Implications for Israel

(4) ISA paper "ref. UAR (Egypt) SSM Chassis Capabilities of Israeli Airfield"

SECRET

*Orig to Bundy*

February 13, 1964

*File  
Nasser  
missile  
\* Israel  
nuclear*

THE UAR/ISRAELI MISSILE PROBLEM

Superficially, the Israeli position seems unassailable. Since the UAR is allegedly building up a huge missile stockpile, Israel needs a counter-deterrent. So Israel apparently plans to buy a large number of French SSMs (despite repeated probes, it won't tell us a word of its plans).

*16*

But we see a basic difference between UAR and Israeli missile plans. We're convinced (SNIE 30-4-63) that the UAR's crude rockets, without any hope of nuclear warheads, will pose very little threat to Israel, even on the worst assumptions. However, Israel's acquisition of much superior French SSMs, together with its existing nuclear potential, would critically affect the arms balance in the area. We fear that Israel is moving step by step toward an independent nuclear capability, and that the Arabs will see this all too clearly. The consequences could be serious:

1. Nasser has said flatly that if Israel seemed to be going nuclear, he might have to launch a pre-emptive attack. Israel's Dimona reactor has just gone critical. When this leaks, and then knowledge of Israeli missiles, it might in a period of peak Arab hostility over the Jordan Waters, trigger irrational Arab moves.

2. Even if this is unlikely, Israeli escalation of the arms race into a new dimension will force the Arabs to re-insure further with Moscow. They'll certainly seek better missiles and more arms from the USSR. The USSR is unlikely to give them nuclear warheads, but it could offer Soviet-manned missile bases (a la Cuba).

3. Israeli acquisition of a missile capability will be highly expensive, and in our view, wasteful. Why should Israel waste its own money this way while seeking economic and now military aid from us?

4. Our whole stand against nuclear proliferation will be adversely affected.

So Israeli acquisition of French SSMs is highly dangerous, and to be opposed just as we've opposed an Israeli nuclear capability. Therefore, we ought to use Israel's interest in tanks as a lever to dissuade it from this course.

We may not succeed, but it seems well worth the try. At the minimum we may be able to get limitations on Israel's missile buildup and renewed

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Authority ALL/RA-032-NJ04-7(HC)  
By 6/14/04 NARA, Date 9-25-04

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2.

assurances it won't go nuclear. In any event, such an effort gives us a chance to hold off on tanks till the moment of maximum political advantage, i.e. not too long before the 1964 elections; indeed, our relations with the Arabs may be at such low ebb by then that we ought to leave ourselves the option of postponing the tank issue till 1965 (we held the line on HAWKS from 1959 to 1962).

Talking missiles should not create undue domestic repercussions: (1) we're already tabbed as so pro-Israeli because of our Jordan Waters stand (and will become even more so) that no one will be able to say we're being pro-Arab; (2) American Zionists, like most Americans, are opposed to nuclear proliferation.

The scenario we envisage would be triggered by your reply to Eshkol. We would follow it up by talks here and in Israel designed both to air our concerns and to sort out the tank problem. Then you could either decide on tanks by your June meeting with Eshkol, or continue the dialogue with him then. While highly sympathetic to Israel's tank needs, I see our pro-Israeli stance as so clear that we can afford to stay flexible on this issue for some time.

R. W. KOMER

~~SECRET~~

~~SECRET~~

December 10, 1963

17  
Full  
war missile  
Israeli seen

McGB:

For weekend reading, suggest you skim SNIE 30-4-63 on UAR Missile Program. I requested this as basis for our responding to Israelis that we do not see UAR rocket development as posing threat Israelis claimed.

SNIE fully backs up this view. Israelis have already admitted primitive UAR rockets couldn't hit military targets, but claim random salvos would disrupt Israeli quick mobilization capability (admittedly vital). SNIE even knocks this down, at least through 1969. So we're left with psychological impact. Here I admit GOI has a problem. How does it explain to Israeli people that all those UAR missiles really don't count?

Nonetheless, you know my feeling that we should make a major effort to turn Israel aside from a missile program of its own: (1) this would risk egging Nasser on to get really good missiles from USSR, rather than contenting himself with the junk he has; (2) even if Israel bought only a hundred French SSMs--instead of the 250 reportedly ordered--these would cost a couple of hundred million bucks, which Israel could far better spend on conventional armaments US will otherwise be expected to provide; (3) in fact, we might even be asked to finance indirectly the SSMs themselves, which gives us added incentive to demonstrate they're a waste of money; and finally (4) the combination of such missiles and Israeli's nuclear potential would facilitate dangerous escalation of the ME arms race.

Since Israel has a legitimate need to modernize its armor, we ought to consider trading help here for Israeli self-denial on missilery.

R. W. KOMER

cc: Mike Feldman  
Phil Talbot  
Frank Sloan

DECLASSIFIED  
Authority NLS/RAC 00-110  
By cbm/ty NARA, Date 9-29-09

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NO FOREIGN DISSEM

196



Nº 6

CIA/RR MM 66-2

February 1966

INTELLIGENCE MEMORANDUM

FINANCIAL AND TECHNICAL DIFFICULTIES  
CONTINUE TO UNDERMINE  
MISSILE AND AIRCRAFT PROGRAMS  
OF THE UNITED ARAB REPUBLIC

DIRECTORATE OF INTELLIGENCE

Office of Research and Reports

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Approved For Release 2000/09/19 : NLJ-032-053-2-12-6

GROUP 1  
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SANITIZED

Authority: NLJ/RAC 032-053-2-12  
By:           , NARA, Date 9/29/04

**WARNING**

This material contains information affecting the National Defense of the United States within the meaning of the espionage laws, Title 18, USC, Secs. 793 and 794, the transmission or revelation of which in any manner to an unauthorized person is prohibited by law.

~~S-E-C-R-E-T~~FOREWORD

Programs for the domestic development and eventual production of jet fighters and surface-to-surface ballistic missiles in the United Arab Republic (UAR) have been costly and markedly unsuccessful up to the present time. Future costs, both in aggregate economic terms and in the drains created on scarce foreign exchange resources of the UAR, will climb even higher if production and deployment of these, or modified systems, ever take place. This memorandum represents an initial effort to derive approximate measures of expenditures for aircraft and missile programs over the past few years and in the near future as well as an attempt to identify the probable time period when increased expenditures might create additional burdens for the economy of the UAR. The memorandum also defines some of the limits of precision of present estimates and will provide the basis for further analysis when more data become available.

- iii -

~~S-E-C-R-E-T~~

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FINANCIAL AND TECHNICAL DIFFICULTIES  
CONTINUE TO UNDERMINE  
MISSILE AND AIRCRAFT PROGRAMS  
OF THE UNITED ARAB REPUBLIC\*

Summary

Since their inception in 1960, both the military jet aircraft and the short-range surface-to-surface ballistic missile (SRBM) programs of the United Arab Republic (UAR) have encountered technical and financial difficulties. Although troublesome, time-consuming, and costly, these problems have apparently not been considered critical enough by the UAR to override the government's requirement for domestically produced advanced weapons systems. Intelligence information became available during 1965, however, which indicates that both programs are in serious trouble and that major redesign of both systems, followed by further development and testing, will probably be required starting in 1966. Thus costs during the next few years -- largely for development and testing -- will probably continue at about \$30 million to \$50 million\*\* per year, or about the same level as estimated recent annual expenditures. If, sometime after 1970, successful redesigns and tests of these systems are completed and production of both aircraft and missiles is pushed to near-concurrent peak rates thereafter, costs could climb to between \$50 million and \$100 million per year during the production run. Foreign exchange requirements for purchased materials and components would probably rise at the same time.

---

\* The estimates and conclusions in this memorandum represent the best judgment of this Office as of 1 February 1966.

\*\* Costs have been derived from a variety of sources. Costs in Egyptian pounds have been converted at the rate of E£ 1 to US \$2.3. Costs in West German marks have been converted at the rate of 4 DM to US \$1. Other cost estimates and aggregative totals are based on equivalent US costs in current US dollars.

~~S-E-C-R-E-T~~

Expectations by the UAR that some of its total costs could be recovered through sales and barter agreements with other less developed countries appear to be foundering. In spite of financial considerations and doubts which may exist about the ability to ever develop these systems to meet the military requirements of the 1970's, the UAR appears to be continuing both programs with the intention of deploying domestically produced aircraft and missiles as soon as possible. The increased expenditure levels necessary to produce both systems at the same time could create additional difficulties, but this is a dilemma which will probably not have to be faced for at least several more years.

In 1960 the UAR began concurrent programs to develop and produce modern jet aircraft and SRBM's in order to enhance its international image, reduce its dependency on other countries for armaments, and expand its industrial/technological base. The design and fabrication technology for both programs was purchased from European sources, and foreign engineers and technicians were hired to assist the UAR in the development and, hopefully, eventual series production of the weapons systems. At that time the UAR was led to overestimate the quality of the purchased technology and to underestimate the difficulty of implanting the required engineering and industrial base in Egypt. In any case, it became evident by 1965 that (1) the plans for production of the jet trainer (HA-200) had been cut back and the technicians transferred to the jet fighter (HA-300) program; (2) the original schedule for series production of the HA-300 in turn had slipped at least three and probably four years; and (3) the program to develop reliable and accurate missiles was in even greater difficulty. Unsolved technical problems, financial strains within the economy of the UAR, and the loss of some German technical assistance will probably cause both the aircraft and missile programs to slip even further behind schedule.

There has been strong military support in the UAR for both the jet fighter and SRBM programs. They are militarily supplementary and would provide for greater UAR independence from foreign -- particularly Soviet -- influence. These two programs, however, are serious competitors for scarce hard currency foreign exchange and for the scarce technical resources available in the UAR.

- 2 -

~~S-E-C-R-E-T~~

Costs of the two programs are estimated to have averaged between \$30 million and \$50 million per year during 1960-64; this level is roughly comparable to 10 to 16 percent of the approximately \$300 million budgeted by the UAR for its armed forces in Fiscal Year 1964/65. Up to the present time, technical and procurement difficulties and poor management have been largely responsible for the difficulties encountered in the programs, rather than the generally lagging conditions of the UAR economy and the scarcity of foreign exchange. If, however, the programs advance toward the series production phase over the next few years, and if production in both programs peaks at about the same time, a marked increase in financial strain will undoubtedly result. For instance, if both programs reach near-concurrent peak production in the early 1970's, it is estimated that the annual cost of the combined effort could reach as much as \$100 million. Furthermore, the amount of hard currency foreign exchange which would be required for foreign materials, components, and sub-assemblies could then represent about one-half of total production costs.

The willingness of the UAR to accept the heavier economic burden which would result from series production of both jet fighters and SRBM's several years hence cannot be assessed with confidence at this time. Unless there is some improvement in the financial position of the UAR, however, it appears likely that additional external aid from some source would be sought. Although Soviet Bloc involvement in these two advanced weapons development programs has been scrupulously avoided by the UAR up to the present time, an increase in the unwillingness of Western nations to underwrite Nasser's weapons programs could persuade him to make a choice involving Soviet Bloc aid. Another possible option lies in the UAR's potential for obtaining greater financial support from oil-producing neighboring Arab states, although recent information indicates that these neighbors have shown no enthusiasm for procuring Egyptian jets or for providing other financial assistance for these programs. A joint effort by the UAR and India to reduce costs through specialization, with India supplying HF-24 airframes and the UAR supplying engines for these airframes, was also arranged. There is some uncertainty about the future of this arrangement, however, because of the slippage in the UAR engine program and the

recently reported UAR - Communist China discussions about technical exchanges in the field of advanced weapons development. Egypt has denied having a technical association with Communist China, and no outward sign of terminating the original plans has so far resulted.

It is now evident -- probably even to many Egyptian leaders -- that the UAR missile and aircraft programs have been extremely wasteful of scarce resources and that the UAR has achieved only marginal gains in the development schedule for advanced weapons over its position in 1960. During the intervening period, world technological developments have further outpaced UAR domestic capabilities, and it is extremely doubtful that anything approaching independence in these programs can be achieved within the next ten years even if they continue to be accorded the same degree of priority as in the past. At best, further redesign and testing of these systems might result after 1970 in weapons whose production would still be critically dependent on imported components and whose military worth would probably have been further devalued by world standards before any significant deployment could be achieved. Even if this much could be accomplished, moreover, it would place still heavier burdens on an already groaning economy. Nonetheless, it cannot be asserted with confidence that the UAR is yet ready to accept such a gloomy prognosis as the basis for its future decisions on these projects. To do so would seem to call for an outright cancellation of either or both of the programs -- a course of action that the UAR may ultimately be forced to accept. For the time being, the UAR is apparently continuing some support to both programs. Under reexamination, some future shifts in design parameters or even a major redirection of basic systems concepts could also occur.

## I. Introduction

Since the revolution of 1952 the United Arab Republic (UAR) has been engaged in an ambitious program to modernize and strengthen its armed forces. This effort has been pushed even more vigorously since the Israeli military successes in 1956. Although the UAR has received much modern military equipment from the USSR and other Communist countries, complete dependence on foreign assistance has been considered undesirable. Indeed, uncertainties relating to Soviet deliveries of spare parts for UAR military inventories have had the effect of encouraging and accelerating UAR moves toward an independent military equipment capability. 1/\* The most important domestic efforts have been the construction of industrial facilities for production of jet aircraft and short-range ballistic missiles (SRBM) in order to reduce dependence on outside sources for military assistance and to enhance national prestige.

## II. Jet Aircraft Program

### A. Chronology

Among the more important manufacturing facilities in the UAR are those engaged in the development and assembly of jet fighter aircraft and engines at Helwan,\*\* a complex located about 15 nautical miles south of Cairo. The Helwan aircraft complex consists of two major factories, designated No. 36 and No. 135.\*\*\*

Factory No. 36 has the responsibility for developing and manufacturing airframes, and Factory No. 135 has a similar responsibility for aircraft engines. Helwan is to be the center of the UAR jet aircraft program, which reportedly envisioned production of 100 Mach-2 jet fighter airframes and compatible powerplants by the late 1960's. 2/ Supplementing the fighter program, an effort was also begun to produce 75 jet trainer aircraft. 3/ Both the supersonic jet fighter aircraft (HA-300) and the jet trainer (HA-200) were designed by Willy Messerschmitt, a West German national. Successful completion of these aircraft development programs would provide the UAR with a basic indigenous jet aircraft industry which could later be enlarged and possibly developed into a source of civilian jet aircraft production. 4/ The program was given impetus by the acquisition of a jet trainer manufacturing license and a supersonic jet developmental project from Hispano Aviacion, S.A. (HASA) in Spain, a project that the Spaniards could no longer afford to subsidize. 5/

\* For serially numbered source references, see the Appendix.

\*\* There is also a small plant (Factory No. 72) located at Heliopolis that reportedly produces, in addition to consumer items and armored cars, a light trainer aircraft named Gomhouria. The production of this aircraft is excluded from further consideration in this memorandum.

\*\*\* Some of the factory buildings located in the Helwan complex are also referred to as Group 360 and are engaged in the manufacture of consumer goods for the civilian markets.

Under the terms of the contract with HASA, the UAR received the program blueprints, developmental data, tools, and a half-scale wooden glider model of the HA-300 as well as a license to manufacture HA-200 jet trainers at Helwan. Messerschmitt transferred his services to the UAR as part of the transaction. Ten HA-200 aircraft were also purchased from HASA for delivery during 1961. 6/ Early delivery was requested to substantiate the UAR claim that Helwan was in production according to previous plans and that these 10 aircraft represented the initial output of the Helwan factories. 7/ Over the years, HA-200 production has lagged, and production was virtually halted in mid-1963 when engineers were shifted to the high-priority HA-300 project. Of a planned production run of 75 HA-200 aircraft, only about 30 to 35 aircraft had been completed by the end of 1965, including the 10 aircraft obtained from Spain. Recent evidence of renewed efforts has been noted in the jet trainer project. 8/

Parallel to the hiring of Messerschmitt for the development of airframes, Ferdinand Brandner, an Austrian, was brought into the UAR to develop jet engines at Factory No. 135. Brandner, noted for the work he had done on aircraft engine development in the USSR after World War II, subsequently hired about 250 West German and other European technicians to help him.\* 9/

The date for completion of the pre-production series HA-300 jet fighter aircraft was set for the beginning of 1964, but the project lagged and it was not until March 1964 that the first prototype of the HA-300 was even flight tested.\*\* 10/ It was reported that three prototypes of the HA-300 had been produced by the end of 1964, but recent information indicates that the third prototype is still under construction. 11/ This prototype is being modified to accommodate the larger E-300 engine (with afterburner). The original program planning appears to have been too ambitious, and the program is now estimated to be about three to four years behind the original schedule. Serial production of a complete aircraft will probably not begin until after 1968. 12/ Even then, the aircraft will probably have undergone some further redesign and modification and will require additional testing.

## B. Problems

### 1. General

Internal factors that have contributed to the slippage in the aircraft program are numerous. There was no large industrial base on which requirements could be levied for raw material, production equipment, or components for various subsystems. The absence of an adequate industrial base has made it necessary for the UAR to import

\* The total foreign technical personnel in both programs (HA-200 and HA-300) reached an estimated 500 at the end of 1964.

\*\* The British Bristol Orpheus 703 engine was used in the prototype.

virtually all of the subassemblies and components. Furthermore, there was no large reservoir of skilled manpower in the UAR that could be drawn on for the project. This shortage of skilled labor has caused problems in forming and stressing metals necessary for complex uneven surfaces. In addition, there has been antagonism between the relatively high-paid foreign managers and technicians and the Egyptian technicians.

Factors external to the UAR have been equally vexing. There has been reluctance on the part of Western countries to enter the Middle East arms race -- overtly or covertly. Israel has registered concern with the West German government and has applied pressure both on the government and on the individual technicians in an attempt to force the foreign technical staffs to leave the UAR. These outside pressures and restrictions have caused the UAR to resort to subterfuge in the procurement of items needed for the program. Purchases have been made through cover firms\* in Switzerland with the accompanying penalties of premium prices, high brokerage fees, and delays in delivery.

## 2. Engine Development

Problems related to the manufacture and development of the jet engines have been as serious as problems in the airframe program and in turn have created slowdowns in airframe production because of design changes.

The E-200 jet engine (for the HA-200 airframe), an unlicensed copy of the French-made Marboré II, was flight tested in August 1963. With the aid of equipment imported from France via Spain, the technicians at Helwan have been able to incorporate a number of improvements which reportedly have increased the performance of the French engine. 14/ Production of the E-200 engine, however, has been affected adversely by the shift of technicians to the engine program for the Mach-2 aircraft.

The Egyptian Air Force is also attempting to develop a jet engine that will make the HA-300 a Mach-2 aircraft. This engine,

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\* Because a number of Western governments would not sell war materials directly, the UAR has used the services of two cover firms in Zurich, Switzerland -- Mechanical Company, A.G. (MECO) and Motoren-Turbinen-Pumpen, A.G. (MTP). MECO was established prior to 1960 and was used initially as an agent for procuring the jet manufacturing license from Spain. Early in 1960, when the jet engine program began to take shape, MTP was established. Both firms have been active in the procurement of personnel, plant equipment, and components needed to carry on the UAR jet aircraft program. These operations have been successful to the extent that the UAR has acquired a substantial amount of equipment and supplies not directly obtainable from Free World countries and has avoided US export restrictions through transshipment of imports through third countries. 13/

E-300, is said to be a new design, although the West German technicians have drawn heavily on information obtained from a detailed examination of the British Bristol Orpheus 703. Difficulties have developed in the E-300 jet engine project and have caused substantial delays. For example, the addition of a suitable afterburner that would produce the required thrust was impossible, because the airframe's engine compartment was too small. This in turn necessitated changes in the airframe which resulted in further delays. During 1964 an E-300 engine of final design was completed at Helwan and was to undergo bench testing at Factory No. 135. Apparently the initial bench testing has been successful because the UAR has reportedly modified a four-engine Antonov transport and will use it as a test platform during 1966. 15/

#### C. Proposed Collaboration with India

Negotiations, which began in mid-September 1961 between the UAR and India, for the sale of jet engines to India for use in the HF-24 jet fighter culminated in a tentative agreement on 28 September 1964. 16/

When negotiations were initiated between two West German aircraft specialists -- Ferdinand Brandner in the UAR and Kurt Tank in India -- both of their respective jet aircraft development programs were encountering serious difficulties. India was unable to find or develop a suitable engine for the fairly well-developed supersonic airframe, and the UAR was having difficulties developing the airframe and engine. However, Brandner apparently convinced his counterpart in India that in a relatively short time he could produce an engine that would be suitable for the Mach-2 version of the HF-24. As the discussions continued, it was reported that a number of UAR engines were to be shipped to India in exchange for Indian airframes. If a suitable UAR engine is manufactured and a barter agreement concluded with India, each country could save scarce foreign exchange.

A note of uncertainty was recently injected into the collaboration efforts when India reacted to reports of UAR - Communist China discussions about technical exchanges in the field of advanced weapons development. Egypt promptly denied these reports, and no outward signs of terminating the original plans resulted. Along with Indian uncertainties associated with the aircraft program, there has been a general lack of interest in purchase of these aircraft by other Arab nations. The UAR had hoped to establish a market for jet aircraft among neighboring Arab and African countries. 17/

#### D. Costs

It is estimated that the HA-200 and the HA-300 programs cost from \$125 million to \$175 million during 1960-65. A tentative forecast suggests that between about \$50 million and \$100 million may be expended during 1966-69, bringing the total financial outlays for the

programs to about \$175 million to \$275 million. If additional slippage occurs, caused by shifts of technical personnel, engine or airframe production problems, reluctance of European suppliers to export necessary components, or the addition of highly sophisticated gear to the aircraft, some \$25 million or more could be expended, with the total cost of the program ranging from \$200 million to \$300 million.

#### 1. Total Program Costs

The information available to date is too fragmentary to permit more than a general approximation of the costs of the HA-200 and HA-300 programs through 1965. Some large identifiable sums associated with these programs, most of which have been for the HA-300 program, are presented in the following tabulation:

<u>Item</u>	<u>Amount <sup>a/</sup></u> <u>(Million US \$)</u>
Purchase from HASA	4
Cover firms	
MECO	17 <sup>b/</sup>
MTP	50 <sup>b/</sup>
Bristol Orpheus engines	2
Labor	35
Plant	5
 Total	 <u>113</u>

a. Most of these expenditures represent foreign exchange.

b. Expenditures through 1964 only.

The total shown in the tabulation, \$113 million, was derived from a number of sources and is probably significantly less than total expenditures for the program. The relative firmness of the minimum figure, however, lends credence to other, more general reports of an even greater cost for the program during 1960-65, corresponding to the estimated \$125 million to \$175 million noted above.

#### 2. HA-200 Costs

The number of HA-200 jet trainers planned for production has been reported as 75. Of this number, 30 to 35 HA-200's probably have already been assembled. Analysis of available data on the HA-200 project has resulted in an estimated cost of \$150,000 for each aircraft. On the basis of this average cost, the program expended an estimated \$4.5 million to \$5.25 million in the period 1960-65 (30 to 35 aircraft).

If the original plan to produce 75 aircraft is still operative, it could cost an estimated \$6.0 million to \$6.75 million during 1966-69, when the remaining 40 to 45 aircraft could be produced. Total procurement costs for the HA-200 are consequently estimated to be about \$11 million during 1960-69. The HA-200 project is still in existence and has not been completely displaced by the higher priority HA-300 aircraft. An indication that the HA-200 effort has suffered, however, can be seen by examining the production rate. The first HA-200 was assembled in 1961, and at present the assembly rate is still only about one per month.

### 3. HA-300 Costs

Total output of HA-300 jet fighters was planned to be 100. By the end of 1964, two prototypes had been produced with a third under way. The program also includes production of the E-300 jet engine. The cost of one HA-300 aircraft, based on cost analysis studies for similar aircraft, is estimated to range from \$1.2 million to \$1.7 million. The variables within the program itself, plus political uncertainties that could result in radical changes in the outline of the project, make it impossible to project either a production or a cost schedule for the next five years with any degree of certainty. The following tentative forecast is based on the fragmentary data that are available.

Even if the goal of the jet fighter aircraft remains at 100 units, it now appears certain that series production will probably not begin before 1969. Under more favorable circumstances the pre-production series of 10 aircraft will not be completed before early 1969, with perhaps another 15 aircraft completed by the end of the year. Under these terms the costs associated with the HA-300 program during 1966-69 would be between \$60 million and \$90 million for research, development, test, and evaluation (RDT&E) and would result in production of no more than 20 to 30 aircraft. It seems likely that the above program outline is optimistic and that actual costs during the period will be limited to RDT&E costs plus perhaps some small portion of the pre-production series, indicating total program costs of between \$40 million and \$60 million. The wide range of uncertainty reflects both the absence of reliable information on details of the program schedule and a lack of data on individual elements of program cost.

## III. Short-Range Ballistic Missile Program

### A. Background

Both the jet aircraft and the missile programs discussed in this memorandum began about the same time, in 1960, with the recruitment of German scientists and technicians. Just as the aircraft program was drawn from already existing designs (the HA-300 airframe and

Bristol Orpheus jet engine), the missile program was also based on technology gained from earlier designs (the French Veronique and the German V-2). Similarly, both programs followed earlier unsuccessful Egyptian-sponsored efforts, and both started with the utilization of facilities constructed for those earlier efforts.

The first public showing of the UAR's surface-to-surface missiles occurred in 1962, with launchings for press observers and parade displays. Two types were shown; both were single stage and liquid fueled. The larger of the two, called Al Kahir (Conqueror), is approximately 33 feet long with a diameter of slightly more than 3½ feet. The smaller missile, Al Zafir (Victor), is about 20 feet long with a diameter of slightly under 2 feet. 18/

A two-stage combination of the Conqueror and the Victor, called Al Ra'id (Pioneer), was exhibited for the first time in July 1963. Originally intended to serve both as two stages of a planned three-stage satellite launching vehicle and as a third surface-to-surface missile system, the Pioneer system development (and, therefore, the satellite program) has been shelved. For propaganda purposes, however, the Egyptians yearly parade the same four Pioneer shells through the streets of Cairo.

Tight security surrounding the UAR's missile program makes its scheduling difficult to estimate with confidence. Relatively crude and unsophisticated guidance systems were added to the missiles during 1962-63. Two Conquerors and two Victors were displayed in the July 1963 Independence Day parade on prototype mobile erector-launchers. Sporadic flight and static testing, which has been under way since early 1961, was suspended indefinitely early in 1965.

There has been no deployment of these surface-to-surface missiles in the UAR and no production beyond the hand fabrication of prototypes. These have been used for display in the annual Independence Day parades and in the research and development programs. The suspension of test launchings in early 1965, reportedly due to continued guidance and structural problems, called a halt to an almost completely unsuccessful test flight program. The evidence indicates that testing will be resumed only after an exhaustive analysis of existing designs and test results. Changes in key personnel have complicated the situation -- with new technicians bringing a new approach. This implies that several more years will be required to achieve anything approaching a finished weapons system.

In spite of recent efforts to spur the development of internal sources of supply in order to save foreign exchange, most of the components for missile test vehicles will have to be purchased from other countries for some years to come. West German firms have been the major suppliers of materials for the UAR missile effort. Recent

political developments, however, have made the matter of continuing support more uncertain. The West German government threatened to withdraw all support if the UAR established diplomatic relations with East Germany. In mid-1965, West Germany took steps to limit commercial relationships between West German firms and the UAR. However, UAR officials have continually evidenced a determination to see their surface-to-surface missile program through, and, if West German aid ceases, they undoubtedly will turn elsewhere for help.

Other equipment and technical advice have been obtained from firms in Italy (guidance systems) and the United States (sounding rockets and telemetering equipment for the test range). The UAR has also indicated an interest in purchasing Kappa sounding rockets from Japan. 19/

#### B. Program Scheduling and Costs

Because of a high degree of uncertainty concerning the costs and scheduling details of the UAR missile program, cost estimates and forecasts are necessarily imprecise. On the basis of analogous US costs for capital construction of plant facilities of the size and type of those associated with the UAR missile program, as well as on analogous US RDT&E costs for early liquid-fueled missile programs of the general type being developed in the UAR, it is possible to suggest some approximate limits within which the UAR costs probably fall. Under a definition of total program costs which include capital investment in plant and machinery as well as R&D costs plus the test and evaluation costs identified with the test range, it is estimated that between about \$40 million and \$95 million has been spent during 1960-65. Plant construction appears to be continuing at Plant No. 333.\* If the program is continued, an additional sum estimated to be between \$40 million and \$100 million probably will be spent during 1966-69. Expenditures cannot be forecast with any greater precision at this time.

It is unlikely that the UAR will achieve an initial deployed missile capability before about 1970. The number of missiles which might ultimately be deployed cannot be accurately forecast at this time. Plans for at least some eventual deployment are probably still in effect, although at this stage seem rather meaningless.

#### IV. Prospects Beyond 1970

The aircraft and missile programs -- both of which the UAR still seems determined to pursue -- appear at this time to have uncertain and questionable futures for reasons related to both technical feasibility and UAR industrial capability. Furthermore, it is possible that

\* Plant No. 333, the key facility in the UAR's ballistic missile program, is located near Heliopolis, the eastern suburb of Cairo.

financial pressures will continue to mount and that a corresponding competition for available funds will force the UAR to cancel one or both of the programs. The aircraft program would probably be easier to retain in that it is technically more fully developed, but missiles have a longer run appeal. There will probably be even a stronger demand for missiles in the UAR in the next year or two when the first of the French MD-620 short-range missiles is delivered to Israel. For political reasons, it would be difficult to cancel either program, but the UAR would probably be forced to seek additional outside aid if it decides to continue both through to production.

Because the Egyptians seem to be continuing as though they had serious intentions of producing and deploying both of these systems, very approximate estimates have been made of the possible future procurement costs that may arise if series production ever begins. It is believed to be unlikely that production on any regular scale could begin much before 1970 at the earliest, with maximum economic impact from the production costs to be felt about two years thereafter. If both aircraft and missile are put into production at about the same time, and the rates of output are approximately concurrent and parallel up to an estimated maximum annual rate, between \$50 million and \$100 million in production costs would probably be incurred in peak years of production. About one-half of this amount would be in foreign exchange. During these years, UAR plant facilities -- with some additional plant equipment and continued substantial dependence on imports -- could probably support an annual production rate of about 20 to 40 jet fighter aircraft and 30 to 40 SRBM's. Annual costs of production at these rates, therefore, are estimated to be about \$40 million to \$70 million for aircraft and \$10 million to \$30 million for missiles. In addition to the production costs, there will probably be costs associated with continuing R&D, but how much these costs would amount to cannot be estimated at this time.

APPENDIX

SOURCE REFERENCES

25X1A

25X1A 1. CIA. [REDACTED] S/NO FOREIGN DISSEM.  
 [REDACTED] S.  
 Frankfurter Rundschau, 20 Jul 64. U.  
 Frankfurter Allgemeine Zeitung, 30 Mar 63. U.

2. [REDACTED]  
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 14. [REDACTED]  
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D FOREIGN DISSEM.

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16. State, Cairo. Airgram A-239, 5 Oct 65. OFF USE.  
 17. [REDACTED] S.  
 [REDACTED] C/NO FOREIGN DISSEM.  
 18. CIA. OSI-SM/63-3, 26 Feb 63. S/NO FOREIGN DISSEM.  
 CIA. OSI-SR/65-29, 2 Aug 65. S/NO FOREIGN DISSEM.  
 19. [REDACTED] S/NOFORN/CONT CONTROL.

25X1A

[REDACTED] C.  
 [REDACTED] S.  
 FBIS. Daily Report (Middle East, Africa, Western Europe),  
 no 117-63, 17 Jun 63. U.  
 CIA. FDD Summary no 4844, 17 Jul 63. C.

INCOMING TELEGRAM *Department of State*

- TUNDY SMITH
- BATCRR
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- BROWMAN
- CHASE
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AT FEB 4 MEETING WITH FONMIN MEIR, AMBASSADOR RAISED  
 MATTER OF ISRAELI ALLEGATIONS RE AMERICAN INVOLVEMENT  
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 LEAST REGIONAL BASIS. HE STRONGLY ADVISED GOI TO PLAY THIS  
 TOPIC DOWN.

FONMIN SAID GOI NOT ORGANIZING ANY PRESS CAMPAIGN.  
 IT EXERTS NO MORE INFLUENCE OVER LONDON "JEWISH OBSERVER"  
 THAN USG DOES OVER AN ALABAMA NEWSPAPER. ISRAEL DOESN'T  
 CARE WHETHER CUBIC EMPLOYEES "UNDER CONTRACT" OR "PERMANENTLY  
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 MISSILE GUIDANCE PROBLEMS. ACCORDING BITAN (US DEPT.),  
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AMB REITERATED USG'S FINDING THAT GOI ALLEGATIONS  
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*Uar missile*

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 E.O. 13292, Sec. 3.4 & FEUS. Vol. XVII, p. 293f.  
 By *Ag*, NARA, Date 9-28-04

# OUTGOING TELEGRAM Department of State

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In connection with tendentious story London Jewish Observer January 22  
equipment  
alleging US ~~instruments~~ and scientists helping Egyptian missile program,  
Washington's "Near East Report" published the following in its issue of  
January 26:

"A London newspaper story that American scientists and American equipment were helping Egyptian rocket research was denied by a Department of State spokesman who called the allegation "totally inaccurate."

"According to one sensational story, the Cubic Corporation of San Diego, California had agreed to provide the Egyptian government with American specialists "for work stipulated by the Egyptians" of a "classified" character.

"The Near East Report called the Cubic Corporation and was given the following story by C.J. Breitwieser, its vice-president.

"Cubic sold the Egyptians electro-tapes and installed a photogrammetric system for aerial survey work in connection with Egypt's irrigation program. That was three years ago.

"He said that his company had no technicians in Egypt and that it had never provided Egypt with any "classified" equipment which could be used in the development of the missile guidance system which the Egyptians are

Drafted by:

NEA:NE:RPDavies:av 1/29/65

Telegraphic transmission and

classification approved by: NE - Rodger P. Davies

Clearances:

EUR - Mr. Amitay (informed)

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ORIGIN / ACTION

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DEPARTMENT OF STATE

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INFO: BONN, CAIRO, LONDON, PARIS

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ANALYSIS & DISTRIBUTION  
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FROM : American Embassy, TEL AVIV

DATE: January 28, 1965

SUBJECT: Another "Expose" of American Assistance to UAR Missile Program

REF :

The Embassy transmits herewith the verbatim text of the article entitled "Nasser Trying to Exploit American Know-How in Order to Solve His Missiles' Navigational Problems" which was given front-page treatment in the January 24, 1965 edition of MAARIV under the by-line of its Paris Correspondent Uri DAN. The Department will note that while Dan's latest effort follows in general the line of both his earlier "exposes" on the same subject as well as recent JEWISH OBSERVER articles, it does have the novelty of trying to top-off the rather imaginative cake with the following "legal" frosting: "According to the U.S. Constitution, this company (Cubic) must keep its know-how secret."

For the Ambassador:

*Stephen E. Palmer, Jr.*  
 Stephen E. Palmer, Jr.  
 First Secretary of Embassy

Enclosure: As stated

- BUNDY-SMITH
- BATOR
- BELK
- BOWMAN
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- KOMER
- MOODY
- REEDY
- SHERIDAN
- SAYRE
- THOMSON

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FORM 4-62 DS-323

Drafted by: POL:JDL/era rd/osv 1/26/65

Contents and Classification Approved by:

Clearances:

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Page 1 , Enc. 1  
Tel Aviv A-567

22a

NASSER TRYING TO EXPLOIT AMERICAN KNOW-HOW IN ORDER  
TO SOLVE HIS MISSILES' NAVIGATIONAL PROBLEMS

Egypt's attempts to solve the problems involved in the navigation of its missiles through the use of American know-how have set off a hidden struggle between Cairo and the U.S. and West German authorities over the services of two new groups of scientists recruited by Cairo.

One group is composed of American experts; the second of Germans who have specialized in the United States.

But the struggle over this issue is not only between Cairo and Bonn, but also between Cairo and Washington, and it is concerned with another group of American scientists working on the navigation of missiles in Egypt, whose presence was reported for the first time by MAARIV about two months ago.

What both these groups, the German and American, have in common is that this is the first time Cairo has made a deliberate attempt to base the solution of its technical problems on American know-how.

At first the Egyptians received official American aid in the field of space research, from the Boeing experts who came to Egypt openly.

But this was only a cover. At the same time Cairo secretly recruited a group of experts from the Cubic Corporation in California - a well-known company in the sphere of rocket control and navigation.

At the same time Egypt also began handling 45 German experts, who studied navigational problems at the Litton Co., also in California. This group was supposed to work in the Litton plant in Freiburg, West Germany, which made electronic parts for the U.S. Starfighter F-104 planes under an American licence.

The Litton plant in Freiburg stopped making these systems, because the production of the Starfighter was discontinued. 300 of these planes were made in Germany, and the stoppage caused a sizeable crisis in the German aircraft industry. The group of navigational experts at the Litton plant in Freiburg received notices of dismissal.

The Egyptians opened a large-scale recruiting drive (Professors Gercke and Dr. Kleinwaechter have finished their duties, and other navigational experts have left). Cairo wanted to bring the 45 experts to Egypt, in the attempt to supply their missiles with the most modern navigational systems, based on American know-how. This would have given Egypt tremendous potential, of which it has never dreamt to date.

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Page 2  
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However, it is learned that 30 of these experts did not travel to Egypt, following the intervention of the former West German Defense Minister, Franz-Josef Strauss, who helped them find jobs in Germany. The Egyptians plans failed, therefore, and the Egyptian anger as a result was hardly surprising.

It should be remembered that the know-how these German experts acquired in the U.S. is secret American know-how, and that the West German authorities are responsible for keeping it secret within the framework of the master treaty between Bonn and Washington on the production of the Starfighter in West Germany on an American licence.

The question of secrecy also arises in connection with the experts of the Cubic Corporation. According to the U.S. Constitution, this company must keep its know-how secret. As these experts went to Egypt without the knowledge of the United States Government, the American authorities have the legal power to bring them back, and at least to see now that the American missile navigational equipment will not be exported to Egypt. The Egyptian Government is holding on to these experts with all its strength, and a bitter argument between Cairo and Washington can be expected over this matter.

Meanwhile Egypt is continuing to place obstacles in the path of those German experts who want to leave Egypt. Inter alia they are refusing to pay them what they are entitled to under their contracts.

By Uri Dan, MAARIV's Paris  
Correspondent, January 24, 1965

Translator: FSL AHodes

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TELEGRAM Department of State

INFORMED COLLECT

*Handwritten:* Judgment, 1/23/65, [unclear]

84

Origin NEA

Info: SS, G, SP, EUR, NSC, INR, CIA, NSA, DOD, AID

ACTION: Amembassy TEL AVIV  
INFC: Amembassy BONN 2081  
Amembassy CAIRO 4270

*Vertical stamp:* [unclear]

22 1 23 1965

Deputy Assistant Secretary Jernegan commented to Israel Ambassador Harman January 21 on Secretary's reply to ForMin Meir's letter alleging US private assistance to UAR missile program and transmission of US classified information on missilery through recruitment German technicians (Text being pouched Tel Aviv). He said:

1. Israeli information on Cubic appeared considerable exaggeration or misinterpretation simple facts.
2. Cubic had sold AERIS photogrametric system to UAR but this not for missile guidance, rather to control photogrametric mapping of agricultural development in ~~Aswan~~ area to be irrigated by Aswan Dam.
3. Cubic did not manufacture guidance systems or missile fuels.
4. Cubic had provided UAR six-channel telemetry system that might have been used in UAR rocket program. This catalogue item readily available Europe and far cry from telemetry systems used in modern missiles which had hundreds of channels.
5. No Cubic personnel in Cairo and none permanently stationed there. No American scientists under contract to UAR.

6.....

Drafted by: NEA:NE:HERussell:rvc:1/22/65  
Telegraphic transmission and classification approved by: NEA - John D. Jernegan

Clearance: NE - Mr. Davies, INR - Mr. Spain (info), INR - Mr. Brown (info), MC - Mr. Sipes (info), SCI - Mr. Negbitt (info)

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6. Any foreign technicians hired by UAR could not have made significant contribution to UAR rocket development.

7. Our investigation led to conclusion our low estimate of UAR rocket capability should be lowered. UAR 1/2 years and years away from developing effective missile system.

8. We concerned at press coverage that gave substance to allegations about Cubic and by implication cast USG in bad light.

9. We particularly disturbed about PriMin Eshkol's statement concerning presence US scientists in UAR missile program. Statement admittedly vague but fact he made it gave life to story.

10. We remain determined prevent escalation arms race in NE. Believe new assessment of UAR rocket program and possibility UAR may never produce effective military missile warrant hope Israel will not feel called upon acquire missiles of its own. Also encourages us hope we can induce Nasser halt his rocket development program.

11. Our capabilities investigate German technicians allegedly recruited in German by UAR limited. We had talked however to Litton Industries representatives who will look into matter. Litton representative expressed understanding US policy on missiles but not clear what company or US might do to stop such hiring since dismissed employees no longer part of company and signing contracts as individuals.

Ambassador Harman undertook to report this information to GOI for detailed reaction. Made following comments:

1.....

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1. Since UAR missile development central to Israel's security concerns, Israel compelled to concentrate on obtaining such intelligence. Israeli appraisal differed considerably and assessment that UAR missile threat greater now than when appraised last year.

2. Cubic matter of lesser importance than hiring of Kellige/Litton employees. Central question was what happened to classified US know-how. Was relationship one of German company to US company or government-to-government? Were individuals free peddle wares indiscriminately?

Jernegan said knowledge these technicians not as applicable to missiles as assumed. Had worked on aircraft and altogether their combined knowledge could not produce missile.

Ambassador ~~XXXXXX~~ largely concerned with US methods protecting classified technology. Cited commercial restraints on trade secrets. US methods licensing export technological knowledge of great interest to GOI.

Jernegan agreed might be useful explore existing arrangements with Germans. GOI however from its own dealings with them undoubtedly aware FRG had difficulty controlling movement its own citizens. Decision to license technological processes predicated upon determination that action would not compromise crucially sensitive systems. Kellige technicians involved working on F-104G aircraft had insufficient combined knowledge reproduce elements therein in UAR, particularly given UAR lack large economic and technical infrastructure.

Ambassador concluded he concerned about any contribution to UAR scientific know-how. Time was of essence and imperative slow up UAR technical development. GOI compelled base its estimates upon its own knowledge and assessments.

GP-3

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26

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- BELK
- BOWMAN
- CHASE
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- KEENE
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- KOMER
- MOODY
- REEDY
- SAUNDERS
- SAYRE
- THOMSON

~~SECRET~~ [E73] JAN 27, 9AM

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JAN 27 AM 4 43

REF: DEPTTEL 627

LIMDIS

FOLLOWING DISCUSSION OF OTHER TOPICS ON JAN 26 WITH SCIATT, DIRECTOR US DEPT BITAN (PROTECT SOURCE) RAISED SUBJECT OF SECRETARY'S REPLY TO MRS. MEIR REGARDING ALLEGED AMERICAN PARTICIPATION IN EGYPTIAN ROCKET PROGRAM. ACCORDING TO BITAN, FONMINISTRY NOT RPT NOT COMPLETELY SATISFIED WITH SECRETARY'S MESSAGE. TWO SPECIFIC AREAS OF DISCONTENT ARE: (1) FONMINISTRY REGARDS USG ATTITUDE ON 6 CHANNEL TELEMETERING DEVICE AS TOO CFN 873 27 9AM 627 6

PAGE 2 RUQMVL 151 ~~SECRET~~

CASUAL AND (2) FONMINISTRY BELIEVES THAT USG FAILS TO ATTACH SUFFICIENT SIGNIFICANCE TO "REPEATED MEETINGS" IN EGYPT, EUROPE AND USA OF TOP RANKING CUBIC OFFICIALS WITH GERMAN AND EGYPTIAN ROCKET ENGINEERS AND ADMINISTRATORS.

IN COMMENT STATED TO BE "OFF THE RECORD" BITAN CLAIMED THAT FONMINISTRY HAD NOW ACQUIRED ADDITIONAL INTELLIGENCE INCLUDING FIRM INFORMATION ON SUCH MEETINGS AS RECENTLY AS LAST OCTOBER. BITAN STATED THIS INTELLIGENCE CAME THROUGH FONMINISTRY CHANNELS NOT THOSE OF MINDEF, AND THAT FONMINISTRY HAD NOT YET DECIDED HOW OR WHETHER TO PASS THIS NEW INTELLIGENCE TO USG. THEY ARE CONCERNED WITH TWO PROBLEMS : 1) POSSIBILITY OF COMPROMISE THEIR SOURCES AND 2) THE DESIRE NOT TO SEEM TO CONTRADICT SECRETARY RUSK.

DISCUSSING PRESS CAMPAIGN ON SUBJECT BITAN STATED AGAIN INABILITY OF GOI TO "CONTROL FREE PRESS", PARTICULARLY THAT PUBLISHED ABROAD, E.G., JEWISH OBSERVER. HOWEVER, ACCORDING TO BITAN, THEY ARE MAKING SERIOUS EFFORTS INCLUDING MEETING ONE WEEK AGO BETWEEN ESHKOL AND KIMCHE, EDITOR OF JEWISH OBSERVER, IN WHICH ESHKOL ALLEGED TO HAVE ASKED FOR SILENCE. BITAN EXPRESSED DISTRESS OVER RECENT ARTICLE IN JEWISH OBSERVER WHICH PUBLISHED SEVERAL DAYS AFTER ESHFOL-KIMCHE MEETING. GP-3 BARBOUR

BT  
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06

MEMORANDUM OF CONVERSATION

1-Komer  
2-Att.

*orig. filed 8/5-11-65*

PARTICIPANTS: Mr. Moshe Bitan, Director, United States Department,  
Ministry for Foreign Affairs

Ambassador Walworth Barbour

PLACE : American Embassy, Tel Aviv

DATE : April 29, 1965

SUBJECT : Cubic Corporation Activities in Egypt

*Mar  
missile*

Mr. Bitan came in today to discuss several matters, the only one of particular interest being that of Cubic Corporation activities in Egypt. He said that Mrs. Meir had not replied to the Secretary's note to the Israeli Ambassador of January 18, 1965, on this subject and that she did not intend to do so. He further noted that Mrs. Meir had not raised this subject in conversation last week with Assistant Secretary Talbot. He added that, while the Israelis were not completely happy with the U.S. reply, they have concluded that it will not serve a useful purpose for them to pursue the matter further.

However, Bitan said that there were two or three points which he wished to make. One, it appears that Cubic Corporation has made available to the Egyptians a photogrammetric survey system and a telemetry system. While neither of these systems is classified and their export is consequently not contrary to any U.S. Government regulation, Bitan suggested this type of assistance to the UAR would seem contrary to U.S. proclaimed policy of not assisting missile or rocket programs in the Middle East. In addition, the Israelis have "hard information" that a Cubic Representative by the name of Hicks is still in Egypt and has now transferred his residence from a hotel to a villa outside Cairo. Finally, the Israelis maintain that Hicks is still working with two Germans, one of them the well-known Pilz.

Bitan went on that during Mr. Komer's visit to Israel, he hinted during a meeting with the Prime Minister, etc (presumably the meeting of February 14 covered by Embassy Memo on that date), that the United States might be utilizing Cubic in the UAR for

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an additional purpose, i.e., to obtain information on the status of Nasser's rocket programs. Bitan said that if so this was all to the good but the GOI wondered whether it might not be possible for us to pass on to them some of the information thus developed. Bitan noted that it would be feasible to establish an appropriate Israeli-U.S. channel for such purposes if desired to keep it apart from regular diplomatic channels.

I commented that I welcomed the Israeli decision not to pursue the Cubic matter further. I said that we had thoroughly investigated Cubic's activities and the Secretary's indication of January 18 constituted a most careful, considered response to Israeli concerns. I added that we are most disinclined to continue this dialogue re Cubic and that I had nothing further to communicate and nothing further to say in that connection.

As to the GOI request for further information on the UAR rocketry, I noted that we had repeatedly given the Israelis our best estimate of the primitive and elementary nature of that UAR activity and have been uniformly met with Israeli disbelief. Bitan protested somewhat feebly and renewed his request for specific data in the future.

I reiterated my doubt that even if it was feasible for us to comply anything we said or produced would be convincing to the Israelis and I gave Bitan no encouragement that we would be forthcoming.

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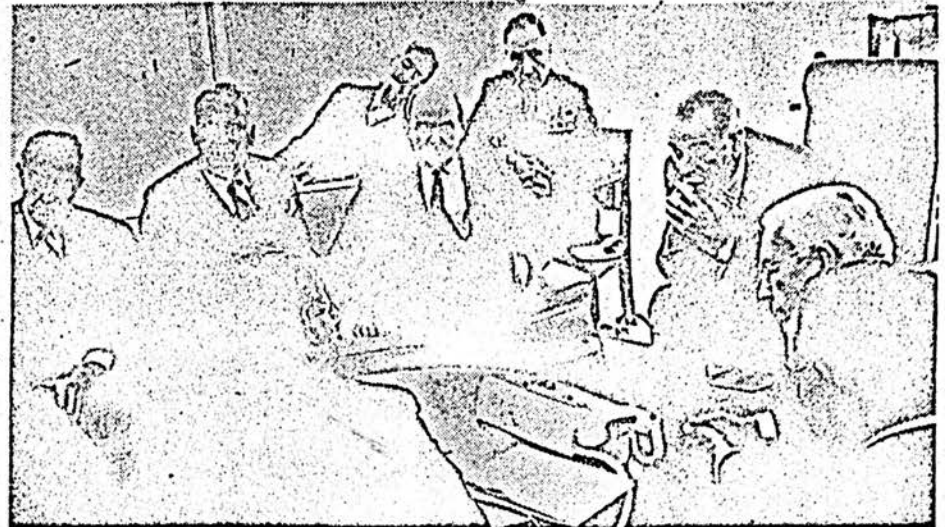
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*the Compliments of the*  
*Embassy of Israel*  
*at Washington*

Shimon H. Moratt

28a

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JOHNSON AND HIS ADVISORS  
An unexpected embarrassment

# WHITE HOUSE ORDERS RECALL OF U.S. SCIENTISTS IN EGYPT

## CUBIC CORPORATION'S CONTRACT TO BE RECONSIDERED

from our own correspondent

*W. M. Maxwell*

Washington :

The White House has asked for a full report from all departments and officials concerned with the so-called American scientists team in Cairo. As more facts came to light following the JEWISH OBSERVER'S first publication of the presence of American specialists in Cairo\*, the administration has become increasingly embarrassed and furiously annoyed at those who have been handling this affair in Washington and Cairo.

At first, the self-righteous denials and expletive denunciations of the JEWISH OBSERVER'S report from Cairo which emanated from the State Department—and other departments—reassured the White House—but not for long.

Further investigation revealed an altogether different kettle of fish. It was discovered that the Israel Government had drawn the attention of the State Department to reports of American scientists or technicians working on weapon-development in Cairo many weeks ago.

Harmless civilians: When nothing happened, the Israelis again raised the matter with rather more persistence. This time, they were reassured, as were the worried U.S. embassy in Tel Aviv and

others that there was no cause for Israeli concern: some American specialists had been privately recruited, it was said, to work on strictly civilian projects in Egypt.

It was thought here that the Israelis were placated by the explanation and that nothing more would be heard of these Americans in Cairo. Into this situation came the JEWISH OBSERVER report, and with it came renewed pressure on the State Department for greater precision about the actual work of these Americans.

The Israel Government, also, renewed its inquiries and expressed its concern. At this point, the White House became rather annoyed and asked the State Department, the C.I.A. and the Department of Commerce for some hard facts.

Classified work: When they got them, White House embarrassment vied with anger at the previous official double talk. The facts were these:

¶ The Cubic Corporation of Balboa Avenue, San Diego, California, had signed an agreement with the Egyptian Government to supply American specialists for work stipulated by the Egyptians.

¶ The State Department and the

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\* In the issue of January 1, 1965.

U.S. Embassy in Cairo were advised of the transaction (and presumably also the Central Intelligence Agency), and it was agreed to treat the presence of these Americans and the work they were doing as classified material.

All this does rather suggest that the Cubic Corporation was called in by the Egyptians for a specific purpose which neither party was anxious to have publicised.

What Nasser wanted: Nor did the further information about the Cubic Corporation or its work in Cairo prove any more reassuring. It is one of the largest manufacturers in its field and turns out a wide range of computer accessories for control equipment and especially military system engineering.

It is particularly known for its work on radar telemetering and the development of guidance control for missile equipment. It manufactures missile support equipment and navigation accessories. And it is one of the foremost suppliers to the U.S. Government; its Federal Supply Code is 94,987.

There is no doubt now in administration circles that President Nasser wanted these specialists to help him overcome the one big bottle-neck which seemed to defy all his German experts—the provision of guidance control systems for his missile armory.

An alibi for the Germans: The realisation of this has come as a shock to the White House. In the first place, the administration wants to know how this collusive arrangement was arrived at, who negotiated it, and who finally approved of it?

Next, instructions are to be issued, or have already been issued, for the recall of the American specialists whose work might be considered as furthering the equipment of an Egyptian missile force. There have been some protestations and suggestions that there need be no interference with the purely civilian aspect of the Cubic Corporation's work in the United Arab Republic.

But the mood at the top is one of intense annoyance that the U.S. should have been placed in so invidious a position that the German Government could point to the American specialists in Cairo as an alibi for the continued presence of the Germans scientists and technicians in Egypt.

Another Israeli demarche: This has been all the more galling as information made available here suggests that the Egyptians are finding it increasingly difficult to recruit Germans for work in Egypt and even to hold those who are

DEMENTI

Sir,—In your issue of January 1, 1965, you published an article, and featured its title on the cover:

AMERICAN SCIENTISTS TAKING OVER FROM THE GERMANS IN CAIRO ?

I feel bound to inform you that the Government of the United States is not in possession of any information which would confirm the rumours which have appeared in the press that American scientists are replacing German scientists working on the construction of missiles in Egypt. This information is, to the best knowledge of the American Government, entirely devoid of any foundation.

(signed) PETER SEBASTIAN  
Second Secretary

Embassy of the United States,  
Paris.

(This is a translation of a letter addressed to the editor of our French edition.)

there. The rate of departure is said to be alarming the Egyptians who had come to rely on this German "technical" assistance.

It is assumed that the administration will now answer the latest Israeli request for information with more precise assurances of early action to ensure the withdrawal of any U.S. aid that might speed the equipping of Nasser's missile force with an effective guidance control system which has so far eluded him—and his German specialists.



AMBASSADOR BARBOUR  
Reassurances in Tel Aviv

NASSER PREPARES  
PURGE

"I HAVE BEEN MISLED"

from our own correspondent

Cairo :

This is to be election week for President Nasser. He is to be President again, either for another six-years or for the term of his natural life. There has not been in years such organised makefing as there has been in the preparation of this event. This can have only one meaning.

In the wake of all this manufactured excitement and natural enthusiasm for Nasser, the hatchet will fall. And it is pretty clear now that it will come down on Premier Aly Sabry's neck in the very near future. He has been chosen as the "fall guy" destined to be blamed for Egypt's disastrous 1964.

The man expected to succeed him is the officer who has been at Nasser's side since the days of the revolution in 1952, and who has been his constant companion everywhere during the last two weeks: Interior Minister and Chief of the Secret Police—Zakaria Mohieiddin.

Uneasy anticipation: There will be other important changes in the Nasser entourage, for Nasser has, at last, become convinced that he must present a new face to the world—especially the Arab world. Some of the most familiar faces are likely to disappear from the centre of the stage which they have held for so long.

No one except Nasser himself knows, of course, what he proposes to do—and who will be the victims of this purge. But judging by the uneasy sense of anticipation that hangs over the outer chambers in the Presidential Palace, there appears considerable certainty about some of the victims.

The name most frequently mentioned is that of the editor of *Al Ahrām*, Hasanein Heikal. This is not the first time that his imminent downfall has been pronounced, only to be confounded. But the reports this time are more persistent.

Diplomatic isolation: The fact is that Nasser feels very strongly that he has been repeatedly misled and ill-advised by some of his closest colleagues during the last two years. He blames Anwar Sadat for leading him into the Yemen adventure; he blames Heikal for the false assessment of Krushchev and the Soviet alliance; and he blames Sabry for the increasing diplomatic isolation of Egypt, and for many of his economic troubles.

The Army, and especially the *Mukhabarat-al-Am*, the Egyptian Intelligence

DEPARTMENT OF STATE

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Memorandum of Conversation

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PART I OF IV PARTS

13

DATE: December 10, 1964

SUBJECT: Cubic Corporation Activities

PARTICIPANTS: Mr. Mordechai Gazit, Minister, Embassy of Israel

NE - Mr. Rodger Davies

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CIA  
White House - Mr. Komer

Amembassy TEL AVIV

17

*Handwritten:* Mrs. Meir  
X Daniel

*Vertical handwritten:* DEF 102  
140K  
XR SC 1 11 UAR

Mr. Gazit had with him copy of Foreign Minister Meir's letter to the Secretary concerning activities in the UAR of Cubic Corporation and its personnel. He noted that in connection with Mr. Davies' previously stated concern at an article in the Jerusalem Haboker on this subject, Mr. Davies had stated that preliminary investigation had shown that no equipment suitable for missile telemetry systems had been provided the UAR by Cubic. This was in contradiction to information available to the GOI.

Mr. Davies said that only a preliminary assessment of Mrs. Meir's allegations had been prepared. The material so far available indicated that the "Aeris" system provided was not adaptable for use in the UAR missile program. It had been sold to the United Arab Airways and was primarily for aircraft guidance and control. Mr. Gazit interjected "But what about the telemetric system?" Mr. Davies answered that no such system had been licensed or exported. In answer to Mr. Gazit's question as to why the company had surreptitiously organized technicians to send through England to Egypt, Mr. Davies said there was no evidence to corroborate this allegation and asked where Israeli intelligence on this matter had come from. Mr. Gazit said vaguely that it probably came from the British or from Israeli intelligence in London. Mr. Davies said that making a statement does not establish the fact. On the basis of information now available, he thought Israeli intelligence was faulty.

Pressed on the question of control of recruitment of Germans having knowledge of US technology, Mr. Davies said this was a complicated matter

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involving citizens of a third country and it would take some time to sort out. Mr. Gazit suggested that in preparing a reply to Mrs. Meir's letter the matters of Cubic Corporation activities and recruitment of German personnel of U.S. subsidiaries in Germany might be answered separately.

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January 4, 1965

Cubic Corporation Activities in the U.A.R.

PLACE: Cubic Corporation Headquarters, San Diego, California

Mr. Walter Zable, President, Cubic Corporation

Mr. Rodger Davies - NE

NEA  
NE - 2  
White House - Mr. Komer

Amembassies CAIRO  
TEL AVIV

I. Israeli Allegations

Mr. Davies said that in November the Foreign Minister of Israel had addressed a letter to Secretary Rusk alleging that the Cubic Corporation was clandestinely cooperating in the U.A.R. missile development program. Following preliminary investigation of the charges, the Israeli Embassy had been informed that most of the allegations were without foundation or were misrepresentations of normal commercial transactions. Shortly thereafter, on December 12, the Israeli newspaper Herut published an article charging U.S. corporations engaged in production of missiles and missile components are working with the U.A.R. in its weapons development program in the guidance and propellant fields. The article asserted ten to fifteen American scientists were in Cairo and implied that the U.S.G. favored this participation as a means of preempting the field from the Soviets.

When the Department expressed concern to the Israeli Embassy over what seemed a leak of information passed to us as "Top Secret", the reply was made that the newspaper's editor had obtained his information from published reports of American firms and the Office had no part in the article's presentation. In later December, the Department was pressed for a formal reply to the charges. The Israeli Embassy said the informal answer passed earlier was not in accord with facts as understood by its government which requested a detailed reply. On January 1, the London

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Jewish Observer published a rehash of the charges broadly insinuating that if the State Department were unaware of the activities of Americans in the U.A.R. missile program, the CIA very well might be.

Mr. Davies said that both Cubic and the U.S.G. had an interest in providing an answer which would allay Israeli suspicions and close off what could develop into an embarrassing press campaign domestically.

II. Cubic Activities in the U.A.R.

Mr. Davies reviewed the specifics of the allegations against Cubic; Mr. Zable made the following comments:

1. The charges are gross distortions of a few basic facts. Specifically,
  - a) The assertion that the Aeris system is designed or can be adapted for missile navigation and tracking is false. Cubic does not manufacture a guidance system. Aeris is a photometric survey system which can fix the position of a small, slow-moving aircraft at the time any one of a series of aerial photographs is taken. It is being used to survey lands to be utilized when the Aswan Dam is completed.
  - b) The allegation that Cubic adapted the Aeris system to missiles is false. This is technologically not possible. The computer for the Aeris system is slow speed and does not have the storage capacity to be adapted for telemetry. (The U.A.R. has a high speed complex computer at the College of Engineering in any event, according to Mr. Zable). Cubic did not propose that a European firm involve itself with the Aeris system and has worked out the "bugs" in the system purchased by the U.A.R. by use of its own personnel.
  - c) The Aeris equipment was not returned to the United States. D.A. Kindig, who was installing the system, returned to the United States in 1963 to consult on problems encountered in utilizing the system and to arrange for incorporation of the aforementioned computer. Since this unclassified equipment had no military potential, its export was not subject to Department of State munitions control clearance.
  - d) Mr. Zable did sign a contract for electronic equipment (transmitters and receivers) in mid-1964. These were catalog items only and are readily available in several European countries.

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As Cubic had lost money in remedying defects in the Aeris system, Zable had jokingly told Mahmud Khalil that private U.S. firms were subsidizing Egypt. Without Cubic suggesting it, Khalil added \$50,000 to the agreed price of \$160,000 which enabled the company to break even.

**III. Movements of Experts**

- a) Kindig travelled to Cairo in December 1962, but the allegation that his visa application was under cover of UAA employment is false. Kindig went out as a Cubic employee to service the Aeris system.
- b) In connection with servicing of the Aeris system, Marlyn Hicks, Kindig and, for a very short period, an Italian technician, went to Cairo. All returned to the United States.
- c) As noted above, Kindig serviced the Aeris equipment and returned to the United States for consultation on measures to ensure that the system met the U.A.R.'s photometric survey needs.
- d) Hicks returned to Cairo in 1964 in connection with delivery of unclassified electronic equipment to the U.A.R.
- e) William Thompson was not in Egypt in 1964 although at one time he was scheduled to go.
- f) Zable has visited the U.A.R. many times; he enjoys close business and personal relations with Mahmud Khalil and Aziz Sidqi, Commander of the U.A.R. Air Force. His last visit was with his wife. As guests of Mahmud Khalil, they toured Aswan and the Abu Simbel site.
- g) Goercke visited Cubic only once. This was not for the purpose of discussions of liquid propellants.

**IV. Cubic Team in the U.A.R.**

- a) Zable described this charge as sheer fantasy. If there were 12 Americans in Cairo on business, they were not Cubic employees.
- b) Cubic employees -- three -- did occupy the so-called "American Villa": Kindig, Hicks and an Italian. They were there temporarily only, during the time it took to "debug" the Aeris system

**V. Summation**

Mr. Davies said that the Department's investigation and Mr. Zable's comments seemed to him to yield the following:

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- 4 -

- a) Cubic has not provided the UAR with any equipment, export of which is precluded by U.S. regulations.
- b) No Cubic personnel are presently in the UAR.
- c) There is no evidence Cubic conducted its activities in the UAR surreptitiously.
- d) No Cubic personnel have been assigned to Cairo for long periods nor insofar as the USG is aware, no individual Americans are employed in the missile development program.

Mr. Zable said that purchases from Cubic had been in the category of electronic equipment available elsewhere. If not purchased from the United States, it would have come from Germany, Switzerland, and Italy. He and his assistants had built excellent working and personal relations with directors of the UAR missile program. He was in a position to monitor "the state of the art" and to make his information available to the U.S. Government. Cubic could document a case for the U.S.G. that the UAR missile was primitive, that it would take 5-7 years for the UAR to come near to achieving the stated objective of the guidance program of a probable error of  $.1^{\circ}$  per minute of flight, that it posed no military threat for the foreseeable future. Indeed, one of the last test firings had almost landed a missile on Cairo. He thought having access to this information was so clearly in the interest of the U.S. that measures to restrict Cubic's activities could only be harmful. Perhaps Israeli pressure could be reduced by passing them some broad assessment of the UAR program based on this information.

Mr. Davies said the U.S.G. did not generally pass information obtained in a friendly country to a third country. It was possible, also, that the Israelis could leak the information thus terminating the Cubic relationship.

#### VI Sources

Mr. Davies inquired whether Mr. Zable had any thoughts on possible sources of the Israeli information--or misinformation as seemed the case. Mr. Zable said he was inclined to think that the Israelis got a report on the 1964 transaction from within the Department of State. He noted that he had requested a license for export to the UAR of a telemetric and command destruction system in the summer of 1964 and within two weeks he was aware that non-official persons knew of the request and were opposing it. He withdrew the request and only the telemetric system was sold. Mr. Davies said that the nature of some of the information, such as the intention

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- 5 -

of the Corporation to send William Thompson to Cairo on July 16, a plan that was not carried out, might indicate that the information was coming from within Mr. Zable's own organization. He conceded that this could be so. He noted that two Americans of the Jewish faith were involved in the Aeris program and, subsequent to its sale to the UAR, both visited Israel. However, there is nothing secret about the system and there is no reason for his employees to avoid discussing it. His accountant, also, was a Jew of Greek extraction. Mr. Davies said it was also possible that the Israelis had an agent among the Germans in Cairo who was retailing bits of gossip or deliberately planting false intelligence. Mr. Zable said there had been a rapid turnover of Germans recently and this, also, was possible. He noted that Goercke had been replaced by a German who had worked in the Soviet Union. He thought this man's name was Sorge; he undertook to check his records on this and pass to Mr. Davies the correct spelling and anything else he had on the man.

GENERAL

Subsequently, over luncheon, Mr. Zable expressed his concern at the recent deterioration in US-UAR relations. He thought that the UAR had accomplished a great deal over the past ten years, could be kept from the Soviet orbit, and warranted every U.S. effort to promote good relations. He thought that in dealing with the UAR, the U.S. had made errors not in what it had done so much as by how it had gone about doing it. The Egyptians were proud and hyper-sensitive. He noted that when the U.S. had refused to license for export the last two of six sounding rockets sold to the UAR by the Zimney Rocket Company until the UAR provided information on disposition of the first four, it was the manner of the U.S. approach which had provoked a negative UAR reaction. Khalil had snorted that the questions asked implied that the Egyptians were so stupid as to believe they could acquire useful military information from the rockets. In another context, the Egyptians would have been willing to discuss use of and problems encountered with the rockets.

Mr. Zable described Mahmud Khalil and Air Force Chief Aziz Sidqi Mahmud as pro-American and suspicious of the Soviets. He noted no Soviets are involved in the missile or jet engine development programs. He urged that the Department seek to bring Khalil to the United States on a visit. He thought at one time he had persuaded Khalil to come, but Nasser had decided that his responsibilities did not permit absence. Khalil says he is not unmindful that he "might be run down by a truck" in Europe or the United States. In fact, Mr. Zable said ruefully, if the Department doesn't convince the Israelis that Cubic's involvement with the UAR program is in Israel's and the United States' best interest, he himself is going to be very wary. He then described some of the terror tactics utilized by Israel against Germans employed by the UAR.

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Mr. Zable hoped that the Department would not take any action which would end American chances of monitoring the UAR missile program. The Egyptians knew that their missile program would not produce an effective weapon for years to come. For prestige purposes, however, they could not stand down from it. Khalil was anxious to convert the program from weaponry to space science and Mr. Zable thought it would be advantageous for this to happen. In fact, he would like to provide the satellite for orbiting by the UAR booster and thought there was a good chance the Egyptians would look to Cubic for help. He hoped the Department shared his belief this would be in our interests.

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DEPARTMENT OF STATE  
WASHINGTON

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His Excellency:

I have the honor to acknowledge the receipt of your note of November 19, 1964, transmitting a communication from Her Excellency Golda Meir, the Foreign Minister of Israel. I would appreciate your conveying to Her Excellency the following reply:

"Dear Madam Minister:

Thank you for your communication concerning the alleged participation of the Cubic Corporation in the United Arab Republic rocket program and recruitment of German inertial guidance experts by the U.A.R. We are naturally concerned about any activities that might undermine the United States policy of not contributing to foreign missile development.

His Excellency

Avraham Harman,  
Ambassador of Israel.

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DECLASSIFIED  
E.O. 13292, Sec. 3.4  
By AS, NARA, Date 9-28-04

JAN 15 1965

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- 2 -

We have investigated intensively the reports you submitted and I am pleased to assure you that:

1. The Cubic Corporation has not provided the U.A.R. with any equipment the export of which is precluded by United States law.
2. There is no evidence whatsoever that the activities of the Cubic Corporation were conducted in a surreptitious manner.
3. The Cubic Corporation did sell the AERIS photogrammetric survey system to the U.A.R. and company personnel did visit Cairo to install and service this equipment. The AERIS system, however, cannot be adapted for missile guidance or tracking. Moreover, Cubic does not manufacture any guidance systems.
4. Cubic Corporation has also sold the U.A.R. a simple six-channel telemetry system which is a catalogue item readily available in several European countries. This equipment may have been used in the U.A.R. rocket program.
5. No Cubic personnel are now in Cairo.

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- 3 -

6. No Cubic employee has been permanently stationed in Cairo, nor, insofar as we can ascertain, are any individual American technicians working under contract in the U.A.R. rocket program.

Our findings confirm our earlier informal conclusion that the Israeli reports on Cubic Corporation represent misinterpretations of a few basic facts.

Our investigation has also disclosed the export to Near Eastern countries of a variety of items readily adaptable for use in the construction of missile components.

Your Excellency will appreciate the difficulties involved in adding a large number of unclassified items to the United States export control lists, especially when they are not designed specifically for telemetry or missile guidance systems. Any restrictions on the export of such items, notwithstanding the commercial disadvantages to United States firms, would have to be applied on a regional, if not global, basis. Although difficult to apply, the same principle would govern controls on participation of United States technical

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personnel in foreign scientific projects.

We will continue to investigate reported U.S.R.

recruiting of German employees of United States commercial

subsidiaries in Germany. To date, our information

indicates that, given the stage of development of the

U.S.R. rocket program, any such employees who may have

been recruited could not contribute significantly to

U.S.R. missile development. While this problem involves

recruitment of non-U.S. citizens by a foreign state and

it would be inappropriate for the United States to involve

itself in a matter that concerns the relations of third

countries, we appreciate Israel's concern and share Israel's

desire to make every effort to prevent escalation of the

Middle East arms race. The United States will have no arms

returned in this effort.

Fundamental to any measures for abating the arms race

is accurate assessment of the capabilities of those involved.

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- 5 -

The investigation on Cubic confirms our earlier estimate based upon our own intelligence and experience with missiles, that U.A.R. missile capabilities and potential for sophisticated weapons development have been greatly exaggerated. Our interest in the state of the art in the U.A.R. and in preventing an escalation of armaments in the Near East through development or acquisition of sophisticated weapons will continue high.

Your Excellency may rest assured that the questions you have raised and their various ramifications have drawn high-level attention in the United States Government."

Accept, Excellency, the renewed assurances of my highest consideration.

Dean Rusk

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INTERNATIONAL SECURITY AFFAIRS

Refer to I-24755/64

~~SECRET~~ WHEN WITH ATTACHMENTS

31

ASSISTANT SECRETARY OF DEFENSE  
WASHINGTON 25, D.C.

May 29, 1964

*UAR Missile*

MEMORANDUM FOR MR. ROBERT KOMER  
NATIONAL SECURITY COUNCIL  
ROOM 372, EXECUTIVE OFFICE BUILDING

SUBJECT: Supplemental information on UAR Missiles

Enclosed herewith is the additional information on the above subject which you requested last night. This information is based on material provided by DIA.

I am also attaching better copies of two of the papers provided you yesterday.

*Frank K. Sloan*

*Bar* FRANK K. SLOAN  
Deputy Assistant Secretary (Regional Affairs)

Enclosures

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INTERNATIONAL SECURITY AFFAIRS

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WHEN WITH ATTACHMENTS

ASSISTANT SECRETARY OF DEFENSE  
WASHINGTON, D.C. 20301

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/

May 29, 1964

Refer to I-24755/64

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NATIONAL SECURITY COUNCIL  
ROOM 372, EXECUTIVE OFFICE BUILDING

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I am also attaching better copies of two of the papers provided you yesterday.

*1st Joe M. Whitefield  
for*

FRANK K. SLOAN  
Deputy Assistant Secretary (Regional Affairs)

Enclosures

- 1) Supplemental Information
- 2) Memo for Sec Def (ISA) dtd 5/28/  
subj: Israeli Estimate of missile
- 3) Memo for: (see Sec Def (ISA) dtd 5/28/64  
subj: "Tank for Israel"

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## SUPPLEMENTAL INFORMATION

1. UAR Capability to Salvo their Missiles.

assumes a UAR capability to fire a sufficient number of their surface to surface missiles seriously to disrupt Israel's mobilization before Israel and/or friendly powers could take retaliatory action against Egyptian launching facilities. SNIE 30-4-63 states "In view of the inaccuracy and limited reliability of the missiles, the inherent difficulties of launching a large number of missiles, and the probable inadequacies of Egyptian crews, we believe it extremely unlikely that the UAR would be able to mount a missile attack which would do enough material damage to disrupt seriously an Israel mobilization effort. . . . . We believe that any likely UAR missile attack would not be severe enough seriously to demoralize or to disrupt the mobilization efforts of a still relatively highly motivated and disciplined people like the Israelis."

In order for the UAR to have a salvo capability, it would be necessary for the Egyptians to fulfill the following conditions:

- (1) A considerable number of missiles would require testing, sufficient auxillary equipment would have to be provided, and missile crews would require extensive and lengthy training.
- (2) Since the UAR uses liquid fuel in their missiles, a high degree of coordination would be required.
- (3) Because there is no refire capability from "hard" launching sites, subsequent salvos would require firing from "soft" launching sites in the vicinity of the support facilities.
- (4) The success of follow-on salvos would rest on the amount of coordination attained by the support crews in fueling and readying the missiles for firing and the amount and degree of Israeli harassment of the launching sites.

If they achieved the foregoing, the UAR might then have a missile reliability rate as high as 60% which would permit an initial salvo capability by building up to a peak readiness state and then pre-empting. It is not believed that Egyptians can meet these conditions within the next few years without considerable foreign assistance.

NO UNCLASSIFIED INFORMATION  
 RECLASSIFIED; AND DTR 5200.10  
 DOES NOT APPLY

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SANITIZED

No Objection To Declassification 2003/05/23 : NLJ-032-053-2-18-U

Authority NLT-032-053-2-18  
 By ag/cbm, NARA, Date 11-15-07

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## 2. Advanced Warheads:

(1) There are no reports that the Egyptians have other than HE warheads for their missiles although the UAR might attempt to fit them with CW warheads. It is extremely doubtful that Egyptians could produce their own lethal gas in sufficient quantities for use in missile warheads. Further, there is no evidence that West Germans or other foreign nationals are engaged in any UAR programs relating to the development of BW, CW or RW weapons, although an Israeli report states that the German expert Dr. Steinberger is working in Egypt on a CW program.

(2) While the Soviet Union will continue its military aid to the UAR, it is not likely to provide nuclear weapons and risk their misuse in local conflicts which could get out of hand. For the same reason, it is not likely that the USSR will furnish Egypt with GB or comparable weapons which could also result in escalation.

(3) Assuming they had the BW, CW, or RW components, it would be necessary to arrange the material so that the center of gravity were the same for each type of warhead. It is doubtful that Egypt has the technical capability to substitute advanced warheads for HE without substantial foreign assistance.

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DEPARTMENT OF DEFENSE  
DEFENSE INTELLIGENCE AGENCY  
WASHINGTON D. C. 20301

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28 MAY 1964

S-154/AP-2D

MEMORANDUM FOR THE DEPUTY ASSISTANT SECRETARY OF DEFENSE (ISA)

SUBJECT: (U) Israeli Estimate of UAR Missiles

In accordance with the request contained in your subject memorandum, file I-24539/64, dated 22 May 1964, enclosed is an evaluation of the information contained in the cited Memorandum of Conversation with the Israeli Military Attache, dated 18 May 1964, including an estimate of the UAR missile capability.

FOR THE DIRECTOR:

*S. B. Frankel*

S. B. FRANKEL  
REAR ADMIRAL, USN  
CHIEF OF STAFF

Enclosure  
a/s (S/NFD), 1 cy

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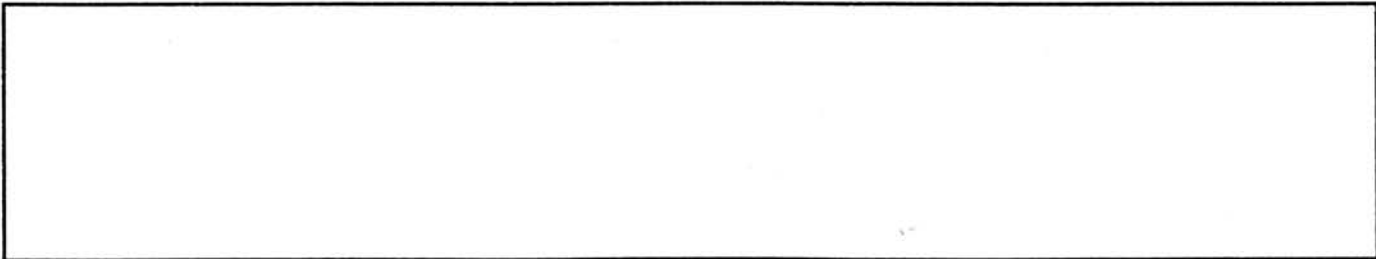
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EVALUATION OF THE ISRAELI ESTIMATE OF THE UAR MISSILE THREAT AS STATED IN THE MEMO OF CONVERSATION BETWEEN DASD (ISA) AND THE ISRAELI MILITARY ATTACHE, DATED 18 MAY 1964

DIA-25x6



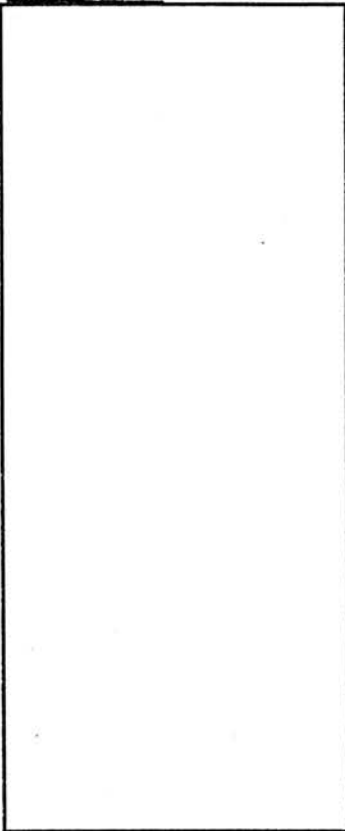
2. Discussion: Following is a comparison of Israeli and U.S. estimates of the UAR missile threat to Israel:

Israeli Estimate

U.S. Estimate

DIA-25x6

a. Missile Inventory:



Possibly a few hundred by 1969, but probably substantially less.

b. Warhead Weight:

130 lbs in Victor missile. 500 lbs in Conqueror missile

c. Types of Warhead:

HE only; there is no evidence that the UAR is developing chemical warheads; it has on hand Soviet incendiary munitions and maybe toxic C.W. munitions left by the British at Suez or purchased from other countries.

d. CEP

5 to 10 nm

EXCLUDED FROM AUTOMATIC REGRADING; DOD DIR 5200.10 DOES NOT APPLY

SANITIZED Authority NLJ-032-053-2-18 By ag/cbm NARA, Date 11-15-07

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DIA-25x6

Israeli Estimate

U.S. Estimate

200-250 nm

e. Range:

f. Total Casualties:  
(w/250 lb warhead;  
these are approxi-  
mately double for  
500 lb warhead of  
Conqueror missile)

Type	4km	6km	8km
HE	180	115	80
Mus- tard	7,300	3,600	less than 3,600
Nerve	18,250	10,900	7,300

g. Targets:

While Tel Aviv is a major target, there are two other population centers (Haifa, with its port, and Beersheba, with its road junction) plus three major airfields. In view of the necessity for the Egyptians to disrupt other centers and to harass Israeli fighter capabilities, it is unlikely that the UAR would fire 40% of its missiles at one target and retain an average of only 12% for each of the other five targets.

h. Disruption of Mobilization

If 200 Egyptian missiles, even improved to a CEP of 1nm and a warhead of 1000 lbs, were fired at the main highway it may be blocked temporarily at a maximum of two places in any one period of time. With respect

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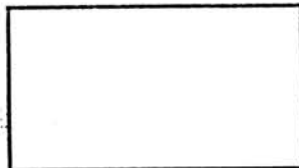
Israeli Estimate

U.S. Estimate

to personnel casualties, unless the Israelis decided to pre-empt and attack the UAR missiles before being fired upon themselves, they must expect to receive some casualties from the initial salvo. Considering that all Israeli fighter aircraft are capable of reaching UAR probable missile launching sites, it is doubtful that Israel would continue to absorb a UAR missile attack for 24 hours without attacking the sites, thereby reducing the potential Egyptian threat.

DIA-25x6

1. Neutralization of 100 launchers firing 800 missiles at Israel over a period of 24 hrs



Assuming the 177 Israeli fighter aircraft were dispersed equally at the three major airfields and protected by revetments, even by improving the UAR missile to a CEP of 1 nm and increasing the warhead to 1000 lbs, the damage to Israel aircraft would be only 5% from a barrage of 66 such missiles. Thus, the Israelis would retain 168 aircraft to attack the UAR missile sites. Assuming two 30 mm guns per aircraft, accuracy of

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Israeli Estimate

U.S. Estimate

16 mil CEP, and  
2,500 ft open-fire  
slant range, one  
burst of 100 rounds  
will give approxi-  
mately .50 probability  
of destroying or  
severely damaging a  
missile with each pass.

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OCI No. 2232/64

CENTRAL INTELLIGENCE AGENCY  
Office of Current Intelligence  
2 October 1964

*Cy to Taabat 10/2/64*  
*war missiles*

CURRENT INTELLIGENCE MEMORANDUM

SUBJECT: Status of UAR Surface-to-Surface Missile Programs

1. UAR interest in acquiring ballistic missiles appears unchanged since the publication of SNIE 30-4-63, 4 December 1963. The UAR missile research and development program, which was started early in 1960 with the participation of a number of West German scientists, appears to be continuing and several missiles have reportedly been test fired during the summer. The UAR was estimated in SNIE 30-4-63 to be capable of deploying a few missiles by mid-1964. We have no evidence that deployment has begun. Also, in addition to the problems cited in the SNIE which still exist, new problems appear to be developing which could seriously hamper future missile development and deployment.

2. In review, the UAR missile developmental program introduced two short range missiles in July 1962--the Victor and the larger Conqueror. No replacements for these missiles have appeared and both are still estimated to be of marginal military value. The Victor is believed to have a payload of 132 pounds, and a range of 250 nautical miles. The Conqueror may be able to deliver a 500 pound warhead to a range of approximately 150 to 250 nautical miles. In 1962, only the Conqueror appeared to have a guidance system. By July 1963, jet vanes, similar to those on the Conqueror, appeared on the Victor missile, suggesting that a guidance system had been added. Also, the appearance of the Victor in 1963 mounted on a mobile erector-launcher suggests that it was at least then nearer to being operational than the

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Authority NLT/RAC 032-053-2-19  
By ry NARA, Date 9-29-04

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Conqueror. More recent evidence indicates that the lack of effective guidance systems seems to be inhibiting the UAR's progress in both missile and space programs.

3. A two-stage rocket, the Pioneer, also appeared in July 1963. This rocket is believed to consist of a Conqueror as the first stage and a Victor as the second stage. Having little military value, the Pioneer was either developed for use as a high altitude sounding rocket or as the second and third stages of a planned three-stage satellite-launching vehicle.

4. The problems of high cost, inadequate production facilities, and shortages of competent personnel which were cited in SNIE 30-4-63 still plague UAR programs. Evidence of new obstacles has appeared during the past year. A schism between the UAR military and the scientists, both UAR and German, has developed, apparently over the priority with which limited resources are to be expended on missile production and deployment and on the development of a native space program. If the military should prevail we anticipate that disappointment, coupled with growing dissatisfaction among Germans with their living conditions, fear for their personal safety, and the lure of more attractive offers from other countries might prompt a German exodus from the UAR. However, UAR personnel participating in the program now have some four years of experience. Hence, the departure of the Germans, while extremely serious, would have less impact than it would have had earlier in the program.

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*Missile*

*Mr* In reply refer to:  
I-24539/64

DECLASSIFIED

Authority: DOD Directive 5200.10  
By Cb, NARA, Date 5-10-93

MEMORANDUM FOR THE DIRECTOR, DEFENSE INTELLIGENCE AGENCY

SUBJECT: Israeli Estimate of UAR Missiles

Your office was recently provided a Memorandum of Conversation dated 18 May 1964 between the Israeli Military Attache and the Deputy Assistant Secretary of Defense for Regional Affairs, IEA (I-35522/64). In the course of the conversation, the Israeli military attache stated that Prime Minister Eshkol would discuss the UAR missile threat with the President during his 1-3 June visit to Washington. In the event this subject is raised during the Eshkol visit, a US response will be required reflecting our estimate of the UAR missile capability.

In view of the above, it is requested that an evaluation by DIA of the information contained in the Memorandum of Conversation with the Israeli Military Attache be provided, as well as an estimate of the UAR missile capability, for possible use and discussions with Prime Minister Eshkol. This information is required by close of business 27 May 1964.

- Distribution:
- Orig + 1/addressee;
  - 1 R&C; 1 Comeback;
  - 1 ISA RF; 1 MESA RF;
  - 1 Chron.

Prep by Mr. Evans/bc/22 May 64/  
OED ISA MESA/42870/79745

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DOD DIR 5200.10

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DEFENSE INTELLIGENCE AGENCY  
WASHINGTON D.C. 20301

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28 MAY 1964

S-154/AP-2D

MEMORANDUM FOR THE DEPUTY ASSISTANT SECRETARY OF DEFENSE (ISA)

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FOR THE DIRECTOR:

*S. B. Frankel*

S. B. FRANKEL  
REAR ADMIRAL, USN  
CHIEF OF STAFF

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a/s (S/NFD), 1 cy

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MAY 28 1964

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