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THE 1962 MALARIA ERADICATION OPERATIONS IN SYRIA ALONG THE BORDER LINE

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1. Syria shares her boundaries with the following countries:

- a) With TURKEY to the North
- b) With IRAQ to the East and South-East
- c) With JORDAN to the South-East and South
- d) With PALESTINE to the South-West
- e) With LEBANON to the West

2. The boundary which separates Syria from TURKEY in the north has an overall length of 808 kms. and it concerns the territories of the following Provinces in its development from East to West: Muhafazat of Hassatche, Muhafazat of Rashid, Muhafazat of Aleppo, Muhafazat of Idlib, and Muhafazat of Iatakya.

The position of the malaria operations along the frontier with TURKEY are summarized in the following table:-

Muhafazat	Border Nahia	Total villages in the Nahia	Villages at Risk in the Nahia	Villages in Con-solidation	Villages under Attack	Map No. of the Nahia
Hassatche	Malkiya	183	88	6	82	111
	Kamishli	456	346	299	47	110
	Amuda	122	76	76	0	109
	Derbassiya	223	78	78	0	108
	Ras El Ain	228	63	0	63	107
Rashid	Tell Abied	655	80	0	80	105
Aleppo	Ain el Arab	153	46	46	0	96
	Sirin	384	57	52	5	95
	Jerablous	93	84	84	0	94
	Eraii	46	31	31	0	93
	Ekhtiarin	68	31	31	0	92
	Ezaz	44	28	28	0	91
	Bul Bul	49	39	33	6	90
	Rajo	74	35	35	0	89
Jinderis	55	44	33	11	87	
Idlib	Dana	21	5	5	0	76
	Harem	46	19	16	3	75
	Selkin	44	30	8	22	73
	Darkhoush	91	38	22	16	72
	Jesser Chaghour	100	79	46	33	71
Latakya	Kabeliya	105	50	50	0	58
	Bassit	104	71	68	3	56
	Kessab	18	13	13	0	57
T O T A L S		3,362	1,431	1,060	371	

3. The boundary separating Syria from IRAQ in the East and South-East has a length of 808 kms. Mainly it runs across the Syrian desert and it borders from North to South the following Provinces: Muhafazat of Hassatche, Muhafazat of Deir Zor, and part of the Muhafazat of Homs. Only the northernmost portion of this frontier is concerned with the malaria problem.

The position of the malaria operations along the frontier with IRAQ is summarized in the following table:

Muhafazat	Border Nahia	Total villages in Nahia	Villages Risk in the Nahia	Villages in Con-solidation	Villages under Attack	Map No. of the Nahia
Hassatche	Malkiya +	183	88	6	82	111
	Tell Kotchek	270	86	51	35	112
T O T A L S		453	174	57	117	

4. Between Syria and JORDAN the boundary runs in direction north-east to south-west and then east to west for about 353 kms. The Provinces touched by this frontier are from north-east to south-west the following ones: Muhafazat of Homs (part), Muhafazat of Damascus, Muhafazat of Sweida, Muhafazat of Dera'a. Only along these two last mentioned Provinces, there exist activities of the malaria eradication programme.

The position of the malaria operations along the JORDAN frontier is as it appears in the following table:

Muhafazat	Border Nahia	Total villages in the Nahia	Villages Risk in the Nahia	Villages in Con-solidation	Villages under Attack	Map No. of the Nahia
Sweida	Melah	33	14	14	0	9
	Salkhad	17	9	9	0	1
Dera'a	Bosra Cham	18	17	17	0	17
	Dera'a +	29	23	19	4	18
	Fiq	82	82	8	74	11
T O T A L S		179	145	67	78	

* These nahias are bordered by the frontiers of two neighbouring countries and therefore the figures are repeated for every country taken in consideration.

5. With PALESTINE the frontier stretches from south to north for about 70 kms., and it borders the two Muhafazat of Dera'a and Damascus.

The position of the malaria operations along the frontier with PALESTINE is shown in the following table

Muhafazat	Border Nahia	Total Villages in the Nahia	Villages at risk in the Nahia	Villages in Consolidation	Villages under Attack	Map No. of the Nahia
Dera'a	Fiq*	82	82	8	74	11
Damascus	Kuneitra*	155	155	67	88	19
TOTALS		237	237	75	162	

6. The boundary between Syria and Lebanon runs from south to north and then from east to west for 278 kms. and touches the following Provinces: Mouhafazat of Damascus, Mouhafazat of Homs, and Mouhafazat of Iatakriya.

The position of the operations along the frontier with LEBANON is the following one:

Muhafazat	Border Nahia	Total Villages in the Nahia	Villages at risk in the Nahia	Villages in Consolidation	Villages under Attack	Map No. of the Nahia
Damascus	Kuneitra*	155	155	67	88	19
	Beit Jin	12	12	12	0	20
	Batana	47	47	47	0	21
	Zabadani	45	45	45	0	22
	Yabroud	10	10	10	0	23
	Nabek	10	10	10	0	24
Homs	Kusseir	78	63	34	29	33
	Hadida	24	24	17	7	34
	Tell Kalak	86	64	44	20	35
Iatakia	Safsafa	64	56	40	16	69
	Hamadiya	30	27	4	23	45
TOTALS		561	513	330	183	

* These nahiyas are bordered by the frontiers of two neighbouring countries and therefore the figures are repeated for every country taken in consideration.

7. The organization of the surveillance in the Syrian programme has been mainly focussing in the building up of a tight network of detection posts which aim at the presence of at least one detection post in each village of the area treated by the malaria eradication programme.

Altogether by the end of 1961, there were already 2,014 Voluntary Collaborators distributed in a corresponding number of villages out of the 4,986 existing in the operated areas. To these, has to be added the the Medical staff (685) who cooperate at different levels of efficiency with the eradication programme and the various health establishments (203) that participate in the case detection organization.

8. This network of detection posts along the frontier nahias has been potentiated as it appears in the following table:

	Turkish frontier	Iraqi frontier	Jordan frontier	Palest. frontier	Lebanese frontier
Total No. of Nahias	23	2	5	2	11
Total No. of Villages in the nahias	3362	453	179	237	561
Total No. villages at risk in front. nahias	1431	174	145	237	513
Voluntary collaborator posts	447	0	60	18	180
Doctors	45	4	16	7	13
Health Establish.	18	2	13	5	11

9. Out of the 77 positive cases of malaria discovered in Syria in 1961, 19 belong to border nahias as is shown in the following table:

Border Nahia	Map No.	Indigenous cases	Relapsing cases	Imported cases from:			Unclassified cases
				abroad	attack areas	consolidation areas	
Fiq	11	4 Pv.	-	-	-	-	-
Quneitra	19	4 Pv. 4 Pf.	1 Pv.	-	-	-	-
Qussair	33	-	-	-	1 Pv.	-	-
Ras el Ain	107	1 Pm.	-	-	-	-	-
Jesr Shagour	3	3 Pv.	-	-	-	-	-
Sirin	95	1 Pv	-	-	-	-	-

Yet it is to be pointed out that the four P.falciparum discovered in Quinetra as well as the P.malariae found in Ras el Ain were found during the first quarter of 1961, which, as a matter of fact, is still connected with the 1960 transmission season. Also it is interesting to know that the three cases of P.vivax belonging to Jesr Shagour were malaria cases contracted in that portion of the nahia which enters the Ghab area where we have the main foci of transmission still remaining in Syria.

10. The reference map gives complementary information on the malaria operations carried out in Syria during 1962 and on the malaria cases detected during 1961. As regards the source of infection of the other 58 malaria positive cases discovered in the nahias not mentioned above., the following table gives all essential data:

Nahia	Map No.	Indige- nous cases	Relap- sing cases	Imported Cases			Uncla- ssifi- ed
				abroad	attack areas	conso- lidat- ion areas	
Damascus City	-			8 Pv.	1 Pv.		1 Pv.
Homs	44				1 Pv.		
Mehardeh	126				4 Pv.		4 Pv.
Salamiy- ah	129		1 Pv.				
Hama	130				3 Pv.		5 Pv.
Tell Salhab	125	2 Pv.	1 Pv.				
Harbi Nafse	131	1 Pv.					
Misyaf	124	1 Pv.					1 Pv.
Ain Halakim	122	1 Pv.					
M'zeiraa	62	5 Pv.					
Darious	60				1 Pv.		
Heffeh	61						1 Pv.
Qutalbiya	50						1 Pv.
Drekish	66						1 Pv.
Deir Zor	117				1 Pv.		
Sabkha	106	3 Pv.					1 Pv.
Raqqqa	103	2 Pv.					
Ras el Ain	107	1 Pv.					
Aleppo	100				2 Pv.		
Breitan	86				3 Pv.		
L. L. 12	84				2 Pv.		