

Appendix 1(v)

SEIZED DOCUMENTS: TARGETING POPULATION CENTERS IN ISRAEL USING UPGRADED 122 MM GRAD ROCKET POSITIONS

- 1. On August 11, 2006, during the second Lebanon war, three files were found in the village of Aita al-Shaab in the central sector of south Lebanon. They contained range cards for three 120 mm mortar and 122 mm upgraded Grad rocket fired from positions in the region of Shihin. The range cards were dated December 2005 and were for 122 mm upgraded Grad rockets (with a range of 20 km – 12.5 miles). The range cards belonged to the artillery department of the Nasr Unit, the unit responsible for the area south of the Litani River, and operating under the command of the Jihad Council.¹**

- 2. It should be noted that most of the rockets fired at Israel during the war were various types of 122 mm rockets (HE-frag rockets, cluster bombs, and upgraded rockets with extended range). The following data are for an upgraded Grad rocket:**

¹ The Jihad Council is a department within the Hezbollah headquarters, responsible for building up the organization's military power and preparing it for emergencies. Hajj Imad Mughniyah, Hassan Nasrallah's military deputy, heads it. He is wanted by the United States for the many terrorist attacks he has carried out against American targets. In addition, Argentina has issued an international warrant for his arrest because of his involvement in the 1994 bombing of the Jewish Community Center in Buenos Aires.

Upgraded 122 mm Grad rocket

Diameter: 122 mm.

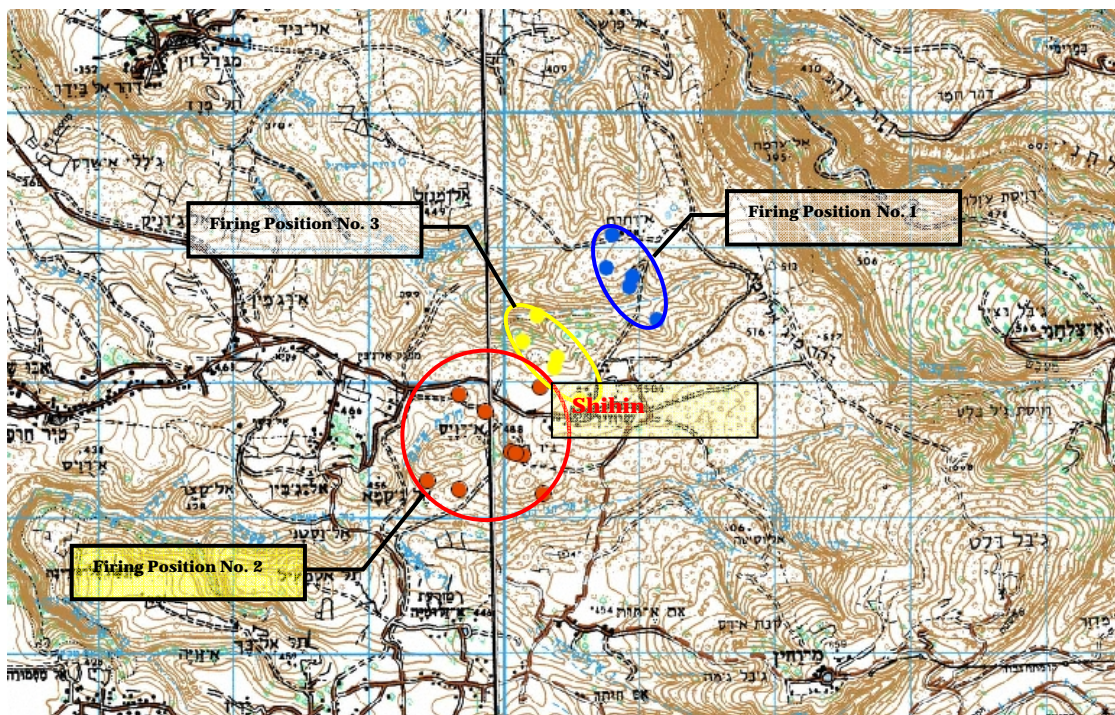
Range: 20 km (12.5 miles)*

Warhead weight: 66 kg (145 lbs)

**Manufacturer: China, Iran, Russia,
Bulgaria**



* There are also upgraded Grad rockets with ranges of 30-40 kilometers (18-25 miles), however, the seized range cards referred to rockets with a range of 20 kilometers



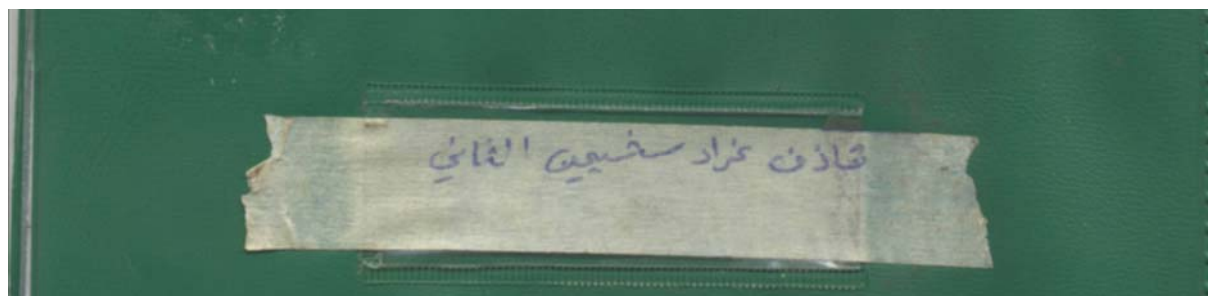
**Locations of Grad rocket and 120 mm mortar firing positions in the region of
Shihin**

3. An analysis of the range cards from Firing Position 2 of the upgraded Grad rockets shows that of the 91 Israeli targets appearing on it, **56 are civilian**. Twenty-seven are IDF posts and bases, which are small and focused and **there was no way of hitting them exactly**, a fact of which Hezbollah was well aware. (See the section entitled “**Rockets as indiscriminate weapons meant to hit wide-spread targets.**”)

4. According to the range cards, there were three large cities in the north of Israel targeted by Grad rockets to be launched from Shihin: **Nahariya, Ma'alot and Shelomi**. The other targets were agricultural and community settlements, and civilian outposts and industrial zones in the Galilee. **Druze villages** appear on the range cards (Hurfeish, Kafr Sami'a and possibly Peki'in). Sometimes a number of targets within the same city were noted, for instance the **center of Nahariya, south Nahariya, Nahariya's Cultural Center, and north, south and central Ma'alot**. Industrial areas also appear, including those at Ma'alot, Tefen (south of Ma'alot) and Liman (near Nahariya).

5. Attached are:
 - a. Range cards for Firing Position No. 2, the English translation and the original document.
 - b. A map of the population centers targeted by Firing Position No. 2's upgraded Grad rockets.

RANGE CARD FOR UPGRADED GRAD ROCKETS OF FIRING POSITION NO. 2 (WEST OF SHIHIN), TRANSLATION



“Grad rockets – second Shihin [position]” written on one of the files where the range cards were found.

Jihad Council		In the name [of Allah] may he be exalted		Position No. 12619			
Nasr Unit		Range Card		Position Name:			
Artillery Department		Upgraded Ringless² Grads		Olive Grove near Shihin Post			
Target No.	Target Name	Western Azimuth	Range	Sighting Angle	Firing angle (with vision)		
					1/1000^o	Degree	
101	[Kibbutz] Kfar Rosh Hanikra	4406	14344	-33	327	306	18.4
102	[Kibbutz] Hanita	4232	9065	-11	193	181	10.9
104	Ya'ara [moshav]	3943	9424	-35	175	164	9.9
107	Shelomi center	4215	12167	-32	251	235	14.1
108	[Kibbutz] Matzuba	4083	11870	-31	243	228	13.7
109	Avdon [moshav]	3844	11366	-28	232	217	13.0
110	Liman [moshav]	4222	15504	-31	377	353	21.2
111	Betzet [moshav]	4222	13036	-35	277	260	15.6
112	[Kibbutz] Cabri	3860	15628	-28	387	363	21.8
113	[Kibbutz] Geshar Haziv	4105	16812	-28	442	415	24.9
114	[Kibbutz] Sa'ar	4026	18182	-25	522	490	29.4
115	Ben Ami [moshav]	3899	18680	-25	555	520	31.2
118	Nahariya center	4008	20071	-24	667	625	37.5
119	Nahariya south	3986	20862	-23	775	726	43.6
124	[Kibbutz] Beit Haemek	3687	20350	-22	698	655	39.3
138	[Kibbutz] Evron north	3940	20566	-23	725	679	40.8
147	Asherat [village]	3649	19716	-22	638	598	35.9
148	Amqa [moshav]	3645	18639	-23	555	520	31.2
171	Liman – industrial zone	4273	15578	-31	381	357	21.4
200	[Kibbutz] Idmit	3855	6779	-4	156	146	8.8
201	Zar'it [moshav]	2347	3984	43	164	154	9.2
202	Shetula [moshav]	2259	6735	30	191	179	10.8
203	Netua [moshav]	2400	9061	7	212	199	11.9
204	Even Menachem [moshav]	2599	6572	23	181	189	10.2
205	Shomera [moshav]	2678	5302	13	151	141	8.5
206	Abirim [moshav]	2867	10120	5	235	220	13.2

² The reference is to a drawing ring which can be added nose cone of a 122 mm Grad rocket.

207	Hila [moshav]	3257	10138	1	231	216	13.0
208	Granot Hagalil	3256	7324	-16	152	142	8.5
209	[Kibbutz] Evron	3414	8045	-15	167	157	9.4
210	[Kibbutz] Eilon	3620	7791	-24	153	143	8.6
211	Ma'alot south	2985	13649	3	338	317	19.0
212	Ma'alot north	2920	11823	4	279	261	15.7
213	Ma'alot center	2929	12638	-2	298	280	16.8
214	Elkosh [moshav]	2591	11911	13	291	273	16.4
215	Matat [village]	2355	13078	26	343	321	19.3
216	Ein Ya'akov [moshav]	3347	13380	-7	317	197	17.8
217	[Kibbutz] Ga'aton	3436	13985	-9	338	317	19.0

Jihad Council
Nasr Unit
Artillery Department

In the name [of Allah] may
he be exalted
Range Card
Upgraded Ringless Grad

Position No. 12619
Position Name
Olive Grove near Shihin
Post

Target No.	Target Name	Western Azimuth	Range	Sighting Angle	Firing angle (with vision)		
					1/10000	Degree	
218	[Kibbutz] Yehiam	3373	14994	-7	381	357	21.4
219	Gita [village]	3179	17696	-8	512	480	28.8
220	Me'ona [moshav]	3105	12220	-4	282	265	15.9
221	Lapidot [moshav]	3113	18582	-1	574	538	32.3
222	Kefar Veradim west	3083	14385	8	371	348	20.9
223	Kefar Samia east	2824	16941	4	483	453	27.2
224	Hosen [moshav]	2870	14556	7	378	354	21.2
225	Peki'in new	2756	17125	-7	481	451	27.1
226	Petzkin [Peki'in?] west	2782	18516	8	579	543	32.6
227	Harashim [moshav]	2785	19869	16	691	648	38.9
228	Hurfeish west	2599	14171	8	364	341	20.5
229	Tzuriet [moshav]	2754	14182	11	367	344	20.6
250	[Kibbutz] Kishor	3171	19939	-2	679	636	38.2
254	Halutz [village]	2872	20064	11	704	660	39.6
255	Kefar Veradim east	2997	14704	10	388	363	21.8
256	Kefar Veradim center	3052	15025	10	400	375	22.5
259	Manot [village]	3691	11471	-21	242	227	13.6
271	Ma'alot industries	2982	12051	3	285	267	16
274	Migdal Tefen industrial area	3024	16583	11	472	443	26.6
305	Avivim [moshav]	1731	20192	12	718	673	40.4
306	[Kibbutz] Yiron	1812	19122	9	624	585	35.1
307	[Kibbutz] Bar'am	1970	17894	14	547	513	30.8
308	Dovev [moshav]	2071	16143	19	460	431	25.9
348	[Kibbutz] Sasa	2254	16723	21	490	459	27.6
360	[Kibbutz] Tziv'on	2189	18411	15	580	543	32.6
1001	Burj al-Musheirifeh	4470	14841	-30	351	329	19.7
1004	Jel Al-'Alam [army] post	4380	11831	-12	262	246	14.7
1005	Hanita [army] post	4250	8623	-12	183	172	10.3
1006	Al-Hamra [army] post	4144	7770	-15	161	151	9.1
1007	Hanita Grove [army] post	4110	8174	-13	172	162	9.7
1008	Liman observation [post]	4293	15221	-32	363	341	20.4
1009	Ya'ara observation [post]	3910	9297	-34	173	163	9.8
1025	North Nahariya cultural center	4048	18825	-25	565	530	31.8
2000	Al-Dhahira [army] post	4099	5285	-5	131	122	7.3
2001	Idmit observation [post]	3841	6814	-6	155	145	8.7
2002	Birqat Risha [army] post	3212	3495	38	152	143	8.6
2003	Zar'it observation [post]	2261	3884	43	163	153	9.2

Jihad Council
Nasr Unit
Artillery Department

In the name [of Allah] may
he be exalted
Range Card
Upgraded Ringless Grad

Position No. 12619
Position Name
Olive Grove near Shihin
Post

Target No.	Target Name	Western Azimuth	Range	Sighting Angle	Firing angle (with vision)		
					1/10000		Degree
2004	Ramia [army] post	1954	5857	29	175	164	9.9
2005	Hadab al-Bustan [army] post	3480	3836	28	146	137	8.2
2006	Al-Raheb [army] post	2219	7836	32	213	200	12.0
2007	Galil Division Headquarters Biranit camp	2322	10684	27	272	255	15.3
2008	Ramish [army] post	2238	12063	24	307	288	17.3
2009	Matat observation [post]	2303	13294	24	348	326	19.6
2010	Western Division Headquarters (Shomera)	2744	5273	13	150	141	8.5
2014	Radar Khirbet Baltoun	3386	10238	-10	222	208	12.5
2019	Western Division Artillery Battalion Headquarters	2757	5390	13	151	142	8.5
3001	Dovev observation [post]	2059	15165	20	417	391	23.5
3002	Harmoun	2025	15207	22	420	394	23.6
3003	Al-Hadab Yaroun [army] post	1930	17497	17	528	495	29.7
3004	Al-Sadah [army] post	1752	17912	15	549	515	30.9
3005	Avivim observation [post]	1721	19704	12	672	630	37.8
3008	Ada'er [army] post	2321	14931	34	422	396	23.7
3009	East Tziv'on [army] post	2169	18978	11	614	576	34.6
3010	Meiron Israeli Air Force Operational Base (Al-Jarmak)	2319	20250	35	748	710	42.1

RANGE CARD FOR UPGRADED GRAD ROCKETS OF FIRING POSITION No. 2 (WEST OF SHIHIN), ORIGINAL DOCUMENT

[Original document]

رقم المريض: 12619
اسم المريض: زينون قرب موقع شحين

بسمه تعالى
بطاقة رمي
عداد معدل بدون سوار

المجلس الجهادي
وحدة نصر
قسم المدفعية

رقم الهدف	اسم الهدف	السمت عربي	المدى	زاوية المنظر		
				زاوية الرمي (مع المنظر)	مليم	ديسي
101	كفر رأس النافورة	4406	14344	-33	327	306
102	حائبنا	4232	9065	-11	193	181
104	بغرا	3943	9424	-35	175	164
107	شلومي وسط	4215	12167	-32	251	235
108	متسوبا	4083	11870	-31	243	228
109	عبدون	3844	11366	-28	232	217
110	ليمان	4222	15504	-31	377	353
111	البصة	4222	13036	-35	277	260
112	كيري	3860	15628	-28	387	363
113	جيشر هازيف	4105	16812	-28	442	415
114	سعر	4026	18182	-25	522	490
115	بن عامي	3899	18680	-25	555	520
118	وسط بهاريا	4008	20071	-24	667	625
119	جنوب بهاريا	3986	20862	-23	775	726
124	بيت هعمك	3687	20350	-22	698	655
138	شمال عفرون	3940	20566	-23	725	679
147	اشرات	3649	19716	-22	638	598
148	عمفا	3645	18639	-23	555	520
171	ليمان صناعي	4273	15578	-31	381	357
200	اداميت	3855	6779	-4	156	146
201	زرعيت	2347	3984	43	164	154
202	شينوفا	2259	6735	30	191	179
203	نطوعة	2400	9061	7	212	199
204	اقي منحيم	2599	6572	23	181	169
205	شومرا	2678	5302	13	151	141
206	اباريم	2867	10120	5	235	220
207	هيبلا	3257	10138	1	231	216
208	جربون هليل	3256	7324	-16	152	142
209	عورين	3414	8045	-15	167	157
210	ابلون	3620	7791	-24	153	143
211	جنوب معلوت	2985	13649	3	338	317
212	شمال معلوت	2920	11823	4	279	261
213	وسط معلوت	2929	12638	-2	298	280
214	الكوش	2591	11911	13	291	273
215	مئات	2355	13078	26	343	321
216	عين يعقوب	3347	13380	-7	317	297
217	جعنون	3436	13985	-9	338	317

رقم المريض: 12619
 اسم المريض: زيتون قرب موقع شيخين

بِسْمِ تَعَالَى
 بطاقة رمي
 عراد معدل بدون سوار

المجلس الجهادي
 وحدة نصر
 قسم المدفعية

رقم الهدف	اسم الهدف	السمت عربي	المدى	زاوية المنظر		
				زاوية الرمي (مع المنظر)	مليم	دبسي
درجة						
218	بحجم	3373	14994	-7	381	357
219	عيننا	3179	17696	-8	512	480
220	معوناه	3105	12220	-4	282	265
221	لابيدوت	3113	18582	-1	574	538
222	غرب كفر فراديم	3083	14385	8	371	348
223	شرق كفر سميع	2824	16941	4	483	453
224	حوسن	2870	14556	7	378	354
225	بغعين حدشا	2756	17125	-7	481	451
226	غرب فقصين	2782	18516	8	579	543
227	حرشيم	2785	19869	16	691	648
228	غرب حرقيش	2599	14171	8	364	341
229	نسويل	2754	14182	11	367	344
250	كيشور	3171	19939	-2	679	636
254	حالونس	2872	20064	11	704	660
255	شرق كفر فراديم	2997	14704	10	388	363
256	وسط كفر فراديم	3052	15025	10	400	375
259	صوت	3691	11471	-21	242	227
271	مصارع معلوت	2982	12051	3	285	267
274	المدينة الصناعية معال نفن	3024	16583	11	472	443
305	افيفيم	1731	20192	12	718	673
306	بروون	1812	19122	9	624	585
307	برعام	1970	17894	14	547	513
308	دوفيف	2071	16143	19	460	431
348	سسع	2254	16723	21	490	459
360	تسغون	2189	18411	15	580	543
1001	برج الميشرفة	4470	14841	-30	351	329
1004	موقع جل العلام	4380	11831	-12	262	246
1005	موقع حابينا	4250	8623	-12	183	172
1006	موقع الحمرا	4144	7770	-15	161	151
1007	موقع شجرات حابينا	4110	8174	-13	172	162
1008	تكنة ليمان	4293	15221	-32	363	341
1009	تكنة يعرا	3910	9297	-34	173	163
1025	المركز التفاضي شمال بهاريا	4048	18825	-25	565	530
2000	موقع الصهيرة	4099	5285	-5	131	122
2001	تكنة ادميت	3841	6814	-6	155	145
2002	موقع بركة ريشا	3212	3495	38	152	143
2003	تكنة زرعبت	2261	3884	43	163	153

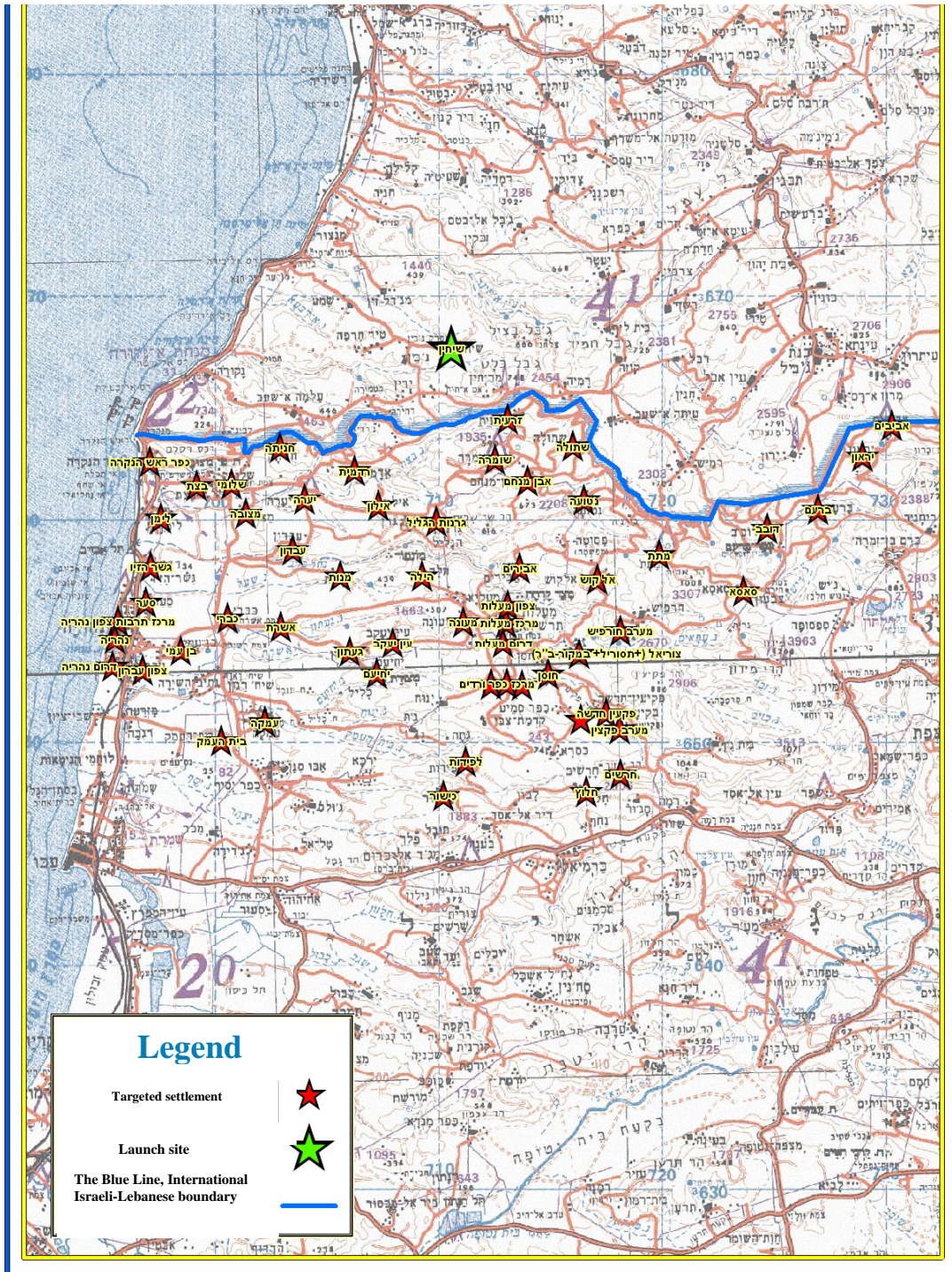
رقم المريض: 12619
اسم المريض: زينون قرب موقع شيخين

بِسْمِ تَعَالَى
بِطَاقَةِ رَمِي
عِزَاد مَعْدَل بَدُون سَوَار

المجلس الجهادي
وحدة نصر
قسم المدفعية

رقم الهدف	اسم الهدف	النسبة عربي	المدى	زاوية المنظر		زاوية الرمي (مع المنظر)
				مليم	ديسي	
2004	موقع راميا	1954	5857	29	175	9.9
2005	موقع حذب البستان	3480	3836	28	146	8.2
2006	موقع الراهب	2219	7836	32	213	12.0
2007	قيادة فرقة الجليل (تكنة برانيت)	2322	10684	27	272	15.3
2008	موقع رميش	2238	12063	24	307	17.3
2009	تكنة مبات	2303	13294	24	348	19.6
2010	مقر قيادة اللواء العربي الشومرة	2744	5273	13	150	8.5
2014	رادار حربة بلطون	3386	10238	-10	222	12.5
2019	قيادة الكتيبة المدفعية اللواء العربي	2757	5390	13	151	8.5
3001	تكنة دوقيف	2059	15165	20	417	23.5
3002	موقع هرمون	2025	15207	22	420	23.6
3003	موقع الحذب يارون	1930	17497	17	528	29.7
3004	موقع الصبح	1752	17912	15	549	30.9
3005	تكنة افيعيم	1721	19704	12	672	37.8
3008	موقع عدائر	2321	14931	34	422	23.7
3009	موقع شرق تسفوعون	2169	18978	11	614	34.6
3010	قاعدة ميرون للعمليات الجوية (الخرمق)	2319	20250	35	748	42.1

MAP OF TARGETS IN ISRAEL APPEARING ON RANGE CARDS³



³ The places starred on the map are those noted on the range card.