

INTERNATIONAL ASSOCIATION OF CHIEFS OF POLICE, INC.  
Professional Standards Division  
1319 Eighteenth Street, N. W.  
Washington, D. C. 20036

June 24, 1968

SUBJECT: Inventory of Riot Control Agent Supply Levels  
in Selected Cities and Counties

TO : Office of Law Enforcement Assistance  
U. S. Department of Justice  
(LEAA #68-37)

The purpose of this report is to provide the Department of Justice with data for use in the development of a program for the distribution of riot control munitions to local law enforcement agencies.

As an initial step in this project, a list of 119 law enforcement agencies was prepared and subsequently approved by the Department of Justice. The 114 cities and 5 counties, identified on the basis of size, location, and civil disorder history, are listed in Table A.

The selected law enforcement agencies were contacted by letter or phone and asked to provide information regarding their riot control agent supply and, in some cases, their supply of protective masks.

As of 20 June 1968, 96, or 81%, of the agencies had responded and the information that they were kind enough to supply provided the substance of this report. Those agencies that did not immediately respond or that refused to furnish the requested assistance are listed in Table B.

CHEMICAL AGENT SUPPLY

Information regarding the existing levels of chemical agent supply is contained in Table C and summarized below.

C. S. Thirty-nine, or 41%, of the 96 responding agencies have no C.S. agent on hand. The remaining departments share some

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24,862 units <sup>1/</sup> of C.S. agent, with the District of Columbia accounting for a little less than half (10,813) of the C.S. units available.

Most of the C.S. agent is concentrated in the 21 cities of 500,000 to 1,000,000 population where 20,187 units of the total supply produce an index<sup>2/</sup> of .87 as compared with the second ranking index of .16 reported by cities in the 100,000 to 250,000 population category.

C.S. and C.N. The "tear gas" currently in police use in the United States is either of the C.S. or the C.N. type, with the older C.N. agent in widest use at a ratio of almost 2 to 1. (45,845 to 24,862 units in reporting cities and counties)

Taken together, C.S. and C.N. agent supplies constitute a national index of .83 with a range of .07 to 5.21. Again, the highest index, 1.50 is found in cities in the 500,000 to 1,000,000 population category. Even exclusive of the District of Columbia, these cities report an index of .97 as compared with the next ranking index of .90 established by cities in the 100,000 to 250,000 group.

D.M. The compound DM is a nauseating or vomiting agent with severe physiological effects that greatly exceed C.N. and C.S. in the magnitude and duration. Although D.M. is the third of three agents available to police for riot control employment, it is not recommended for general riot use and consequently, was not included with C.S. and C.N. in assessing agency supply levels. As a matter of general interest, a total of 926 units of D.M. were distributed among 19 of the reporting agencies.

#### PROTECTIVE MASK SAMPLE

Forty-seven, or 49%, of the responding agencies provided information regarding their supply of protective masks for use with riot control agents. The sample revealed an overall index (masks per sworn personnel) of .28, with those cities listed as a result of recent riot experience showing the highest index, .59.

1/ For the purpose of this study, a unit of chemical agent is a single delivery container. For example, each grenade, projectile, or gas cartridge is counted as one unit.

2/ The number of units of agent per sworn personnel.

If chemical agents are to be extensively used by police in large scale riot control operations, it is difficult to imagine an index of less than .50 being satisfactory. As a minimum, masks should be provided for as many field personnel as may be concurrently assigned to riot control duty.

#### AUGMENTING AGENT INDICES

Table D combines actual responses and projections\* to estimate the units of chemical agents that would be required to augment existing supplies in the 119 listed departments if one of four plans was adopted.

1. Increase C.S. Index to .50 for all agencies -  
47,430 units.
2. Increase C.S. Index to 1.0 for all agencies -  
104,789 units.
3. Increase C.S. and C.N. Index to 1.0 for all agencies -  
58,039 units.
4. Increase C.S. and C.N. Index to 2.0 for all agencies -  
166,505 units.

Other alternatives are available. For example, with an investment of about 47,063 units the C.S. index of all six cities over 1,000,000 population could be brought to .50 and the C.S. and C.N. index of all other listed cities and counties could be brought to 1.0, the very minimum supply recommended by an earlier study as adequate for the first 12 hours of a major disorder.

As noted in Table D, the New York City Police Department, which has not responded to the survey, has sufficient sworn personnel to make a major impact on this study. Should NYC report a high index or not desire to participate in the program, several additional alternative distribution plans would be feasible.

Although additional responses will be received and logged for use in any future distribution program, further reports will be submitted only upon request by the Department of Justice.

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\* Sworn strength of non-responding departments were arbitrarily assigned the index of their respective categories.

It is requested that the announcement of any distribution program be accompanied by a notice that participation in such a program will authorize the IACP to release to the Department of Justice individual department chemical agent statistics that have been collected on a confidential basis.

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6445

TABLE A

JUNE 1968 IACP  
LIST OF CITIES AND COUNTIES\*

I. Cities - Population Criteria

1.	Chicago, Illinois	3,520	C
2.	Detroit, Michigan	1,660	C
3.	Houston, Texas	1,100	C
4.	Los Angeles, California	2,695	C
5.	New York, New York	8,080	C
6.	Philadelphia, Pennsylvania	2,030	C
7.	Atlanta, Georgia	535	C
8.	Baltimore, Maryland	925	C
9.	Boston, Massachusetts	670	C
10.	Buffalo, New York	505	C
11.	Cleveland, Ohio	855	C
12.	Columbus, Ohio	540	C
13.	Dallas, Texas	790	C
14.	Denver, Colorado	520	C
15.	Indianapolis, Indiana	530	C
16.	Kansas City, Missouri	530	C
17.	Memphis, Tennessee	525	C
18.	Milwaukee, Wisconsin	765	C
19.	New Orleans, Louisiana	655	C
20.	Phoenix, Arizona	520	C
21.	Pittsburgh, Pennsylvania	560	C
22.	St. Louis, Missouri	710	C
23.	San Antonio, Texas	645	C
24.	San Diego, California	636	C
25.	San Francisco, California	745	C
26.	Seattle, Washington	565	C
27.	Washington, D. C.	810	C
28.	Akron, Ohio	298	C
29.	Birmingham, Alabama	345	C
30.	Cincinnati, Ohio	495	C
31.	Dayton, Ohio	260	C
32.	El Paso, Texas	309	C
33.	Fort Worth, Texas	360	C
34.	Honolulu, Hawaii	315	C
35.	Jersey City, New Jersey	270	C

\* Municipal Population Estimates - Municipal Year Book, 1967  
County Population Figures - 1960 Census

36.	Long Beach, California	368	C
37.	Louisville, Kentucky	392	C
38.	Miami, Florida	325	C
39.	Minneapolis, Minnesota	465	C
40.	Nashville, Tennessee	261	C
41.	Newark, New Jersey	395	C
42.	Norfolk, Virginia	322	C
43.	Oakland, California	378	C
44.	Oklahoma City, Oklahoma	380	C
45.	Omaha, Nebraska	340	C
46.	Portland, Oregon	380	C
47.	Rochester, New York	305	C
48.	Sacramento, California	265	C
49.	St. Paul, Minnesota	308	C
50.	San Jose, California	308	C
51.	Tampa, Florida	305	C
52.	Toledo, Ohio	354	C
53.	Tulsa, Oklahoma	280	C
54.	Wichita, Kansas	275	C
55.	Albuquerque, New Mexico	242	C
56.	Amarillo, Texas	164	C
57.	Anaheim, California	146	C
58.	Arlington, Virginia	173	C
59.	Austin, Texas	220	C
60.	Baton Rouge, Louisiana	166	C
61.	Bridgeport, Connecticut	156	C
62.	Charlotte, North Carolina	230	C
63.	Corpus Christi, Texas	195	C
64.	Des Moines, Iowa	216	C
65.	Erie, Pennsylvania	136	C
66.	Evansville, Indiana	139	C
67.	Flint, Michigan	202	C
68.	Fort Wayne, Indiana	172	C
69.	Fresno, California	156	C
70.	Gary, Indiana	179	C
71.	Grand Rapids, Michigan	203	C
72.	Greensboro, North Carolina	136	C
73.	Hartford, Connecticut	162	C
74.	Jackson, Mississippi	161	C
75.	Jacksonville, Florida	198	C
76.	Knoxville, Tennessee	181	C
77.	Lincoln, Nebraska	149	C
78.	Lubbock, Texas	152	C
79.	Madison, Wisconsin	154	C
80.	Mobile, Alabama	222	C
81.	Montgomery, Alabama	148	C
82.	New Haven, Connecticut	151	C
83.	Paterson, New Jersey	144	C
84.	Providence, Rhode Island	195	C

85.	Richmond, Virginia	223	C
86.	Rockford, Illinois	136	C
87.	St. Petersburg, Florida	200	C
88.	Salt Lake City, Utah	195	C
89.	Savannah, Georgia	141	C
90.	Shreveport, Louisiana	171	C
91.	South Bend, Indiana	135	C
92.	Spokane, Washington	184	C
93.	Springfield, Massachusetts	174	C
94.	Syracuse, New York	216	C
95.	Tacoma, Washington	152	C
96.	Tucson, Arizona	245	C
97.	Warren, Michigan	149	C
98.	Winston-Salem, North Carolina	139	C
99.	Worcester, Massachusetts	187	C
100.	Yonkers, New York	206	S
101.	Youngstown, Ohio	162	C

## II. Counties

102.	Cook County, (Chicago) Illinois	5,129
103.	Dade County, (Miami) Florida	935
104.	Erie County, (Buffalo) New York	1,064
105.	Los Angeles County, (Los Angeles) California	6,038
106.	Nassau County, (Mineola) New York	1,300

## III. Cities - Metro Criteria

107.	Clifton, (Paterson) New Jersey	85	C
108.	Passaic, (Paterson) New Jersey	54	C
109.	Pawtucket, (Providence) Rhode Island	81	C
110.	Warwick, (Providence) Rhode Island	76	C
111.	East Chicago, (Gary) Indiana	57	C
112.	Hammond, (Gary) Indiana	116	C

## IV. Cities - Historical Criteria

113.	Benton Harbor, Michigan	19	C
114.	Cambridge, Maryland	12	I
115.	Orangeburg, South Carolina	15	C
116.	Plainfield, New Jersey	47	S
117.	Salisbury, Maryland	16	I
118.	Wilmington, Delaware	93	C
119.	Trenton, New Jersey	107	C

TABLE B  
DEPARTMENTS NOT RESPONDING  
BY 20 JUNE 1968  
OR REFUSING TO RELEASE INFORMATION

<u>CATEGORY</u>	<u>DEPARTMENTS</u>	<u>SWORN PERSONNEL*</u>	
Cities over 1,000,000	1 New York, New York	27,418	27,418
500,000 to 1,000,000	4 Cleveland, Ohio Indianapolis, Indiana Milwaukee, Wisconsin (1) Phoenix, Arizona (1)	2,011 915 1,919 662	5,507
250,000 to 500,000	3 El Paso, Texas Honolulu, Hawaii St. Paul, Minnesota (1)	332 707 414	1,453
100,000 to 250,000	12 Arlington, Virginia Baton Rouge, Louisiana Bridgeport, Connecticut Des Moines, Iowa Erie, Pennsylvania Evansville, Indiana Flint, Michigan (1) Fresno, California Mobile, Alabama Montgomery, Alabama Salt Lake City, Utah Springfield, Massachusetts (assigned)	203 271 367 235 186 234 334 242 252 193 242 200	2,959
Major Counties	1 Erie County, New York	130	
Cities - Metro Criteria	2 Passaic, New Jersey Warwick, Rhode Island	114 124	238
Cities - Historical Criteria	0		

\* 1966 U.C.R.

(1) Refused to release information

TABLE C CHEMICAL AGENT AND MASK SUPPLY LEVELS

Department Categories	Listed	Number Responding <sup>1</sup>	% Responding	Sworn	Strength	CS Agent			CS & CN			Mask Sample		
						No CS	Total	Units	CS Index <sup>2</sup>	Total	Units	CS & CN Index <sup>2</sup>	Index	Range
Cities over 1,000,000	6	5	83%	28,975		2	1,249	.04	11,739	.41	.13-1.79	1	1,150	.13
Cities 500,000 to 1,000,000 (Excluding D.C.)	21	17	81%	23,126		4	20,187	.87	34,305	1.50	.14-5.21	6	6,787	.19
		16		20,324		4	9,374	.46	19,683	.97	.14-3.61			
Cities 250,000 to 500,000	27	24	89%	13,777		10	1,103	.08	9,242	.67	.21-1.43	9	4,296	.33
Cities 1,000 to 250,000	47	35	74%	10,155		14	1,632	.16	9,106	.90	.15-4.91	20	5,817	.38
Major Counties	5	4	80%	7,692		1	644	.08	5,663	.74	1.62-.34	2	2,941	.10
Cities - Metro Criteria	6	4	67%	596		3	6	.01	38	.06	.07-.45	4	596	.10
Cities - Historical Criteria	7	7	100%	695		5	41	.06	614	.88	.25-1.75	5	228	.59
<b>TOTALS</b>	<b>119</b>	<b>96</b>	<b>81%</b>	<b>85,016</b>		<b>39</b>	<b>24,862</b>	<b>.29</b>	<b>70,707</b>	<b>.83</b>	<b>.07-5.21</b>	<b>47</b>	<b>21,815</b>	<b>.28</b>

1 a/o 23 June 68 - See attached list

2 Units per sworn officer all reporting communities

TABLE 2 UNITS OF CHEMICAL AGENT REQUIRED TO ESTABLISH LEVELS OF SUPPLY

Department Categories	Listed	Number Responding	% Responding	CS to .50			CS to 1.0			CS & CN to 1.0			CS & CN to 2.0		
				Departments Now .50+	Responding (Actual)	Non-Responding (Projected)	Departments Now 1.0+	Responding (Actual)	Non-Responding (Projected)	Departments Now 1.0+	Responding	Non-Responding	Departments Now 2.0+	Responding (Actual)	Non-Responding (Projected)
Cities over 1,000,000	6	5	83%	0	13,239	12,612	0	27,726	26,321*	1	20,650	16,177	0	46,181	43,595
Cities 500,000 to 1,000,000	21	17	81%	4	6,267	219	3	14,300	2,974	6	7,628	165	3	23,876	5,672
Cities 250,000 to 500,000	27	24	89%	0	5,811	611	0	12,676	1,337	5	5,265	479	0	18,312	1,932
Cities 100,000 to 250,000	47	35	74%	4	3,920	770	1	8,324	2,486	9	3,473	296	3	11,503	3,255
Major Counties	5	4	80%	0	3,203	55	0	7,048	120	2	3,000	34	0	9,721	164
Cities - Metro Criteria	6	4	67%	0	291	117	0	587	236	0	463	224	0	1,056	462
Cities - Historical Criteria	7	7	100%	2	315	0	0	654	0	4	185	0	0	776	0
	119	96	81%	10	33,046	14,384	4	71,315	33,474	27	40,664	17,375	6	111,425	55,080
	Estimated Total Units Required				47,430			104,789			58,039			166,505	

\*Non-responding NYC by virtue of its strength has a disproportionate effect on all totals in its category as well as totals for the entire sample.