### GUIDE FOR COMPUTATION OF RECORDS VOLUME

(To compute totals, round off to the nearest cubic foot)

#### Group A: By filing cabinet drawer and by shelf filing (estimate to the nearest degree of fullness).

	Cubic Feet			
	Full	<sup>3</sup> ⁄ <sub>4</sub> Full	<sup>1</sup> / <sub>2</sub> Full	<sup>1</sup> /4 Full
Filing Cabinet drawer (24" deep)				
Letter size	1.500	1.125	.750	.375
Legal size	2.000	1.500	1.000	.500
Shelf File shelf (36" wide)				
Letter size	2.250	1.688	1.125	.563
Legal size	2.750	2.063	1.375	.688
Card File drawer				
For 5" x 3" cards	.133	.100	.066	.033
For 6" x 4" cards	.213	.166	.106	.054
For 8" x 5" cards	.333	.250	.166	.083
For 10" x 8" cards	.666	.500	.333	.166
Tabulating card drawer (27" deep)	.375	.281	.187	.094
Aperture cards (Tab cards with mounted microfilm)				
(27" drawer)	.375	.281	.187	.094
<b>Group B: By unit count – Estimate to nearest</b> $\frac{1}{2}$	2 unit.			
Cards by size	5"x 3"	6"x 4"	8"x 5"	10"x 8"
As used in visible files(unit is 100 cards)	.0083	.013	.021	.083
Plastic microfilm record card (microfilm	.0002	1012	.021	1002
inserted into channels in card) Unit is 100				
cards	026	040	063	245
	.020	.010	.005	.213
3-ring binders standard as used for directives				
notices etc. (Unit full binder)				
1" thickness	050	Cubic ft		
2" thickness	100	Cubic ft		
2 thekness	.100			
Maps plans drawings etc. (maintained in map or				
nlan cabinets on hangers or in rolls) Unit is 100				
items of each given size.				
$8'' \times 10^{1/2''}$	025	Cubic ft		
11" x 17"	050	Cubic ft		
17" x 22"	100	Cubic ft		
$22'' \times 34''$	200	Cubic ft		
34" x $44$ "	400	Cubic ft		
28" x 40"	300	Cubic ft		
28" x 50"	350	Cubic ft		
20 x 50 34" x 50"	.550	Cubic ft		
40" x 50"	500	Cubic ft		
40 x 50	.500	Cubic II.		
Microfilm and Magnetic Tapes				
16mm 100"	100  reals =	1 cu ft		
25mm 100"	50  reals =	1 cu. ft		
16mm 1 000	15  reals =	1  cu. It.		
Magnetic Tanes	1510018 - 15 - 15 - 15	1  cu. It.		
Microfiche/Jackets	13 = 3000 =	1  cu. It.		
	5,000 -	1 Cu. 11.		

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#### FILING EQUIPMENT STORAGE CAPACITIES

Record Center Box (15" x 12" x 10") (LxWxD) is considered one (1) cubic foot. Shelf file, letter size = 2.25 cubic feet per shelf. Shelf file, legal size = 2.75 cubic feet per shelf. Drawer file, letter size = 1.50 cubic feet per drawer. Drawer file, legal size = 2.0 cubic feet per drawer.

Shelf file = 34 linear inches per shelf Drawer file = 24 linear inches per drawer

2  shelf = 68  linear inches	2 drawer =	48 linear inches
3  shelf = 102  linear inches	3 drawer =	72 linear inches
4  shelf = 136  linear inches	4 drawer $=$	96 linear inches
5  shelf = 170  linear inches	5 drawer =	120 linear inches
6  shelf = 204  linear inches		
7 shelf = $238$ linear inches		

Letter size: number of linear inches  $\div 15 =$  cubic feet

Legal size: number of linear inches  $\div 12 =$  cubic feet

#### FILING EQUIPMENT MEASUREMENTS

Shelf file, letter size = 13-1/4" deep by 36" wide (o.d.)

Shelf file, legal size = 16-1/4" deep by 36" wide (o.d.)

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Drawer file, letter size, 2 drawer = 30" deep by 17-7/7" wide (o.d.)

Drawer file, letter size, 3, 4, 5, drawer = 28-9/16" deep by 14-7/8" wide (o.d.)

Drawer file, legal size, 2 drawer = 30" deep by 17-7/8"wide (o.d.)

Drawer file, legal size, 3, 4, 5, drawer = 28-9/16" deep by 17-7/8" wide (o.d.)

2 shelf	= 29"	2  drawer = 29-3/8"
3 shelf	=40-5/8"	3  drawer = 41 - 1/4"
4 shelf	=52-1/4"	4  drawer = 52-3/8"
5 shelf	=63-7/8"	
6 shelf	=78"	
7 shelf	=87-1/8"	
	2 shelf 3 shelf 4 shelf 5 shelf 6 shelf 7 shelf	2 shelf = 29" 3 shelf = 40-5/8" 4 shelf = $52-1/4$ " 5 shelf = $63-7/8$ " 6 shelf = $78$ " 7 shelf = $87-1/8$ "

# TABLE OF MEASUREMENT REQUIREMENTS

Calculate or estimate cubic feet volume according to the following cubic foot equivalents:

Filing Cabinets:	One letter-size drawer = $1 6/12$ cubic feet One legal-size drawer = $2$ cubic feet
Filing Cases:	One 3 x 5 inch case = $1/12$ cubic foot One 4 x 6 inch case = $3/12$ cubic foot One 5 x 8 inch case = $3/12$ cubic foot
Shelf Files:	Letter size, 1 linear foot = $10/12$ / cubic foot Legal size, 1 linear foot = 1 cubic foot
Computer Printouts:	15 x 11 inches, 10-inch thickness = 1 cubic foot 8 6/12 x 11 inches, 18-inch thickness = 1 cubic foot 8 6/12 x 5 6/12 inches, 38-inch thickness = 1 cubic foot
Tabulating Cards:	10,000 cards = 1 cubic foot

Records in Outsize Equipment and Records not Filed in Containers: Multiply length x width x height (inches) then divide by 1.728 to get cubic footage.

Microform:	100	16mm reels $(100 \text{ feet}) = 1$ cubic foot
	50	35mm reels (100 feet) = 1 cubic foot
	12	inches microfiche = $2\frac{1}{2}$ cubic foot
	72	inches microfiche $= 1$ cubic foot
	10,000	microfiche = $1$ cubic foot

Magnetic Tapes: 7 reels = 1 cubic foot; or base measurement on following where applicable:

Reel Size	<sup>1</sup> / <sub>4</sub> inch x 7 inches x 1,800 feet	36  reels = 1  cubic foot
	<sup>1</sup> / <sub>4</sub> inch x 7 inches x 3,600 feet	36  reels = 1  cubic foot
	<sup>1</sup> / <sub>2</sub> inch x 10 <sup>1</sup> / <sub>2</sub> inches x 3,600 feet	13  reels = 1  cubic foot
	<sup>1</sup> / <sub>2</sub> inch x 10 <sup>1</sup> / <sub>2</sub> inches x 2,400 feet	13  reels = 1  cubic foot
	<sup>1</sup> / <sub>2</sub> inch x 14 inches x 9,200 feet	8  reels = 1  cubic foot
	<sup>1</sup> / <sub>2</sub> inch x <sup>1</sup> / <sub>2</sub> inch x 4, 600 feet	13  reels = 1  cubic foot
	<sup>1</sup> / <sub>4</sub> inch x 10 <sup>1</sup> / <sub>2</sub> inches x 3,600 feet	17  reels = 1  cubic foot
	<sup>1</sup> / <sub>4</sub> inch x 7 inches x 1,200 feet	36  reels = 1  cubic foot
	1 inch x 14 inches x 7,200 feet	5  reels = 1  cubic foot
	1 inch x 12 <sup>1</sup> / <sub>2</sub> inches x 7,200 feet	6  reels = 1  cubic foot
	$\frac{1}{2}$ inch x 14 inches x 7,200 feet	10  reels = 1  cubic foot
	1 inch x 10 inches x 5, 000 feet	11  reels = 1  cubic foot
	1 inch x 14 inches x 10,200 feet	5  reels = 1  cubic foot

Magnetic Tape Selectric Typewriter Tapes:

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4 inches x 4 inches x 1	inch	108  reels = 1  cubic foot

# TABLE OF MEASUREMENT REQUIREMENTS (Continued)

### Still Pictures:

Negatives	2300 8640 2184 5960	35mm six exposure strips = 1 cubic foot 2 x 2 inch mounted slides = 1 cubic foot 4 x 5 inch film sheets = 1 cubic foot 2 $\frac{1}{4}$ x 3 $\frac{1}{4}$ inch film sheets = 1 cubic foot
Prints:	2350 cubic foot	8 x 10 inch glossies or contact sheets = $1$
	9400	$4 \ge 5$ inch glossies = 1 cubic foot
Motion Pictures:	6 11 15 32	35mm reels (1000 feet) = 1 cubic foot 16mm reels (1200 feet) = 1 cubic foot 16mm reels (800 feet) = 1 cubic foot 16mm reels (400 fee) = 1 cubic foot
Sound Recordings:	76 144 48 16	16-inch disc recordings = 1 cubic foot 12-inch disc recordings = 1 cubic foot 7-inch audio-tape reels = 1 cubic foot 10-inch audio-tape reels = 1 cubic foot
Video Recordings:	10 3 9 43 192 24	<ul> <li><sup>3</sup>/<sub>4</sub> - inch cassettes = 1 cubic foot</li> <li>2- inch reels = 1 cubic foot</li> <li>1-inch reels = 1 cubic foot</li> <li><sup>1</sup>/<sub>2</sub>-inch reels = 1 cubic foot</li> <li>8mm cassettes = 1 cubic foot</li> <li><sup>1</sup>/<sub>2</sub>-inch Beta/VHS cassettes = 1 cubic foot</li> </ul>
Electronic Recordkeeping:		

Cassettes (4 inches x 2 <sup>1</sup>/<sub>2</sub> inches x 5/16 inch):

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,			Cubic Inches	Cubic Feet
1	4 x 2.5 x 3.125	=	3.125	
100	4 x 2.5 x 31.25	=	312.5	.18
300	4 x 2.5 x 93.75	=	937.5	.54
500	4 x 2.5 x 156.25	=	1562.5	.90
600	4 x 2.5 x 187	=	1875	1.00
Floppy Discs:	8-inch disc:			
10	8 x 8 x 1 <sup>3</sup> / <sub>4</sub> inches	=	112	
100	4 x 2.5 x 31.25	=	312.5	.18
300	4 x 2.5 x 93.75	=	937.5	.54
500	4 x 2.5 x 156.25	=	1562.5	.90
Floppy Discs:	5 <sup>1</sup> / <sub>2</sub> inch disc:			
10	$5\frac{1}{2} \times 5\frac{1}{2} \times 1\frac{3}{4}$ inches	=	52	.03
100	5 <sup>1</sup> / <sub>2</sub> x 5 <sup>1</sup> / <sub>2</sub> x 17 <sup>1</sup> / <sub>2</sub> inches	=	529	.31
150	5 ½ x 5 ½ x 26 ¼ inches	=	794	.46
300	5 ½ x 5 ½ x 52 ½ inches	=	1588	.92
330	5 ½ x 5 ½ x 57 ¾ inches	=	1747	1.00

#### METHODS FOR COMPUTING STATEWIDE SAVINGS OR COST AVOIDANCE

#### • Reduction in records retention periods

Multiply the cubic feet of records involved times the years not retained. Multiply the result of that computation by the cost of records storage to the agency. Show the computation used and identify all components of the computation.

- **Reduction in number of forms to improve processing or reduce costs.** Multiply the cost of printing on obsolete form by five (5) (maintaining a form usually costs at least five times the printing costs).
- Filing equipment and floor space released or new equipment not required as a result of destroying records or using less costly storage space. Use appropriate cost avoidance figures below, or compute your agency's specific costs. In either case, explain the computation used.
- Cost avoidance by using a less costly storage facility (space and equipment only). Calculate by subtracting the cost of one type of storage from the other and multiplying the result by the number of cubic feet of records.

Storing in Records Center	Storing in Departmental Storage Instead of
Instead of Office	Office
Cost of one cubic foot in office	Cost of one cubic foot in office
if stored in drawer file: \$22.05*	if stored in drawer file: \$22.05*
Cost of one cubic foot in Records Center <u>- 0.98*</u>	Cost of one cubic foot in departmental storage: $-2.38*$
Cost avoided for each cubic foot : \$21.07	Cost avoided for each cubic foot: \$19.67

#### • Cost avoidance by destruction of records (space and equipment only).

Multiply the number of cubic feet destroyed by the appropriate cost avoidance figure as follows: (our computations are attached; these are used for statewide cost avoidance). Cost Avoidance per cubic foot

From Records Centers	\$ 0.98
From Office space, six-shelf cabinet	\$ 13.06
From Office space, five-drawer cabinet	\$ 20.69
From Departmental storage	\$ 2.38

\*For comparison purposes these calculations do not include staff time.

#### METHODS FOR COMPUTING STATEWIDE SAVINGS OR COST AVOIDANCE (Continued)

#### • Elimination of unneeded reports.

Compute the amount of paper saved and multiply by the cost per sheet (.001 cent), ream (\$3.63), based on cost of  $8-1/2 \ge 11$ , 20 lb., bond paper). Add the cost of storing the reports.

#### • Streamlining of workflow.

Include a description of improvements with cost avoidance or savings or an explanation of other benefits.

- Implementation of a vital records retention program.
- Completion of a major study done during the report period that should show results during the next fiscal year.
- Savings from imaging systems.

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