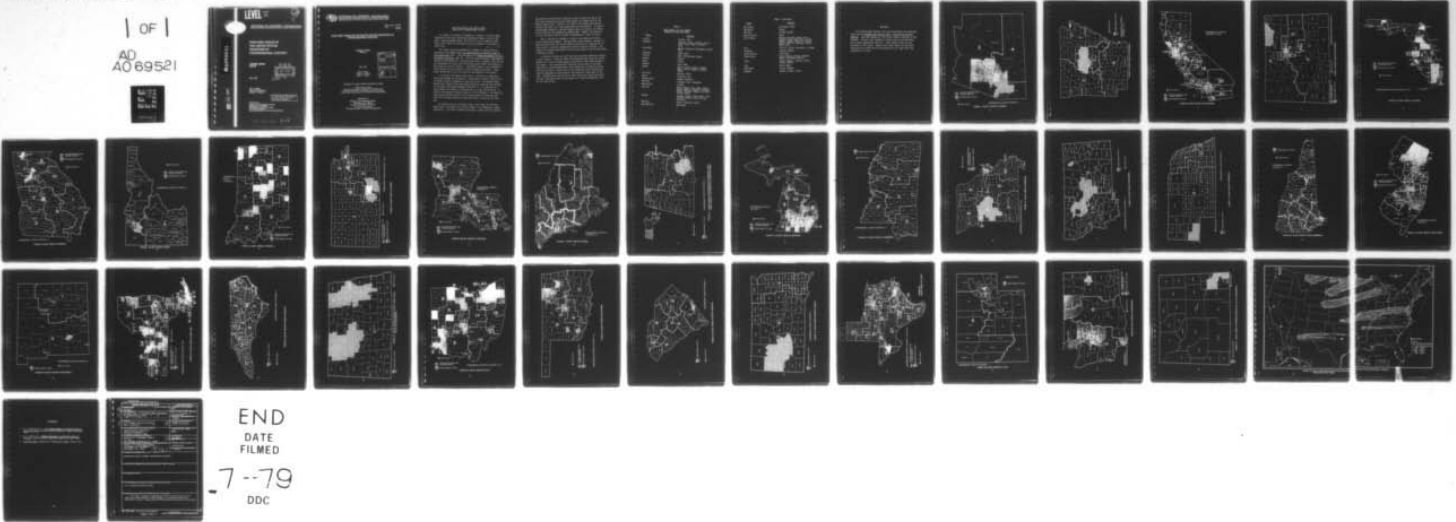


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**HIGH RISK AREAS OF
THE UNITED STATES
IDENTIFIED BY
CONGRESSIONAL DISTRICT**

**TECHNICAL REPORT
SPC 444**

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May 1979

**Earl V. Sager
Charles W. Hulburt
Roger J. Sullivan**

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HIGH RISK AREAS OF THE UNITED STATES IDENTIFIED BY CONGRESSIONAL DISTRICT

TECHNICAL REPORT
SPC 444

May 1979

Earl V. Sager
Charles W. Hulburt
Roger J. Sullivan

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HIGH RISK AREAS OF THE UNITED STATES
IDENTIFIED BY CONGRESSIONAL DISTRICT

This report is provided in response to a request to identify those congressional districts containing counterforce targets, such as ICBM bases, long-range bomber bases, and ballistic missile submarine bases. These installations are considered to be prime targets in the event of nuclear war.

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This report should be considered an addendum to System Planning Corporation (SPC) Report 409, Civil-Defense Needs of High-Risk Areas of the United States [Ref. 1] and SPC Report 431, Damage Assessments of Blast-Risk Areas in Missouri [Ref. 2]. The first report provides a comprehensive picture of the effects of a limited nuclear war on a national scale and for two representative states, while the second report details the effects on the blast-risk areas of Missouri. The present report is only intended to better define the areas subject to blast throughout the nation. These areas are defined as high risk areas for the purposes of this report.

In the case of SPC Reports 409 and 431, a particular counterforce attack was assumed for the analysis. This attack involved a specific set of targets subject to weapons of a particular size. The present report departs only slightly from that attack picture by using the areas defined in the widely distributed document TR-82 [Ref. 3]. For the most part, these attacks are identical, differing only in a few isolated cases. In terms of area subject to blast, there is little difference. The reason for returning to the TR-82 attack is to provide a point of continuity with local civil defense planners who have used TR-82 as the basis for their work.

The smallest unit of land detail used in this report for defining these areas is the Minor Civil Division (MCD), a unit employed in census tabulations. If an MCD is shaded on the maps, it means that the centroid

(by population distribution) receives at least 2 pounds per square inch (psi) peak overpressure from the TR-82 attack, even though parts of the MCD may receive less. Similarly, if an MCD is not shaded, the centroid receives less than 2 psi, even though parts may receive more. In cases of single weapon attacks on isolated targets such as an airbase, the effects of the blast may not encompass the complete MCD. However, for ease and clarity, the entire area of the MCD is designated as a high risk area.

Table 1 provides an alphabetic listing of the states and counties having counterforce targets. The maps which follow (Figures 1 through 31) show the zones within the various states that would be in jeopardy due to blast effects, and which congressional districts would be affected. The states not included would suffer no direct blast effects from the postulated counterforce attack.

In addition to blast, parts of the nation would be potentially subject to early fallout. Figure 32, taken from SPC Report 409, shows the fallout patterns for a similar attack based on the specific March winds assumed in that report. Thus, congressional districts directly east of the zones identified on the state maps have a high probability of suffering fallout from such an attack. While winds are not predictable with high accuracy, patterns comparable to those shown in the Figure are likely much of the time. Considering the variability of winds across the country and during the year, few areas within the continental U.S. would be completely free of risk from fallout.

TABLE 1
AREAS SUBJECT TO BLAST DAMAGE
GROUPED BY STATE AND COUNTY

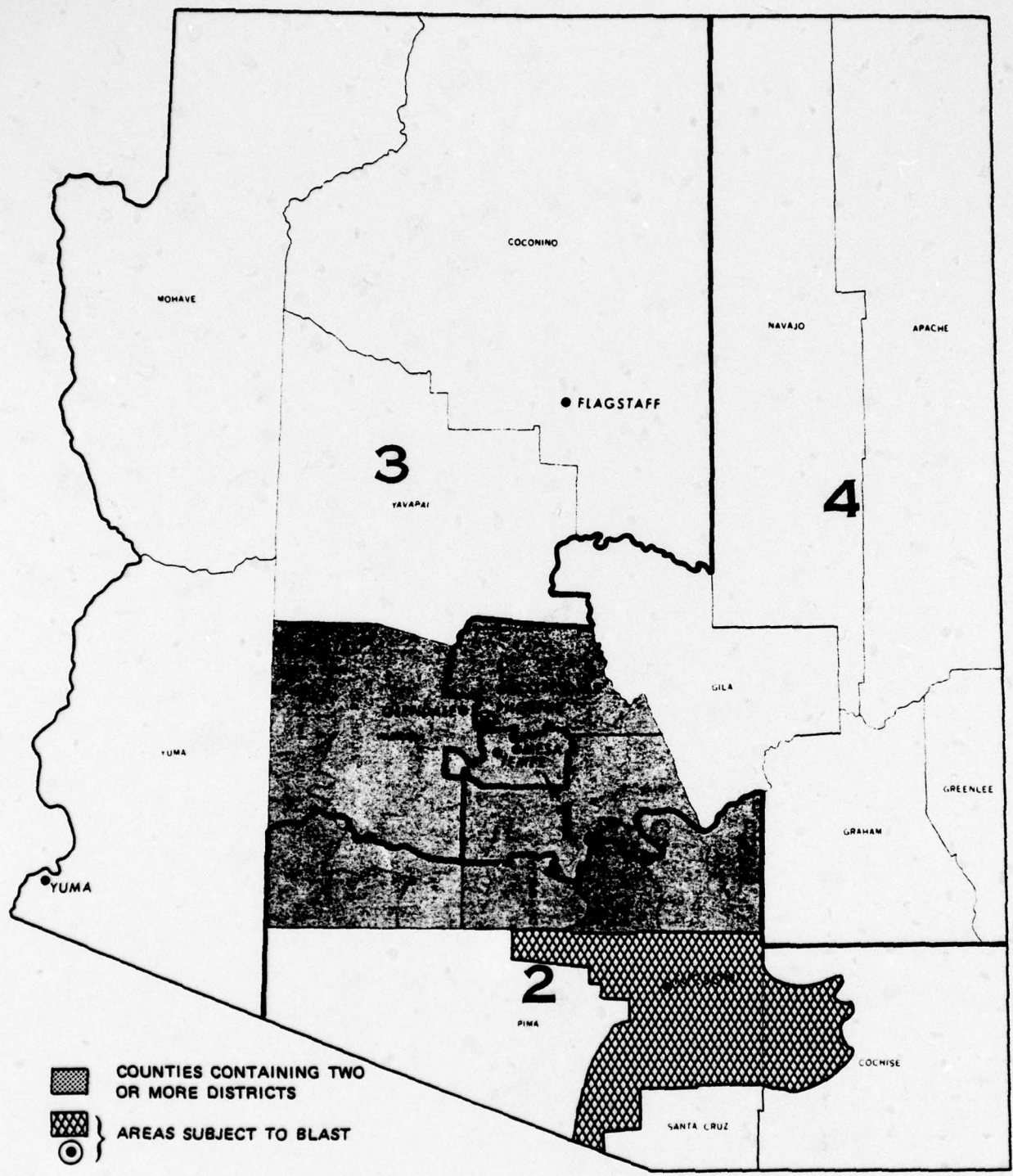
<u>State</u>	<u>Counties</u>
Arizona	Cochise, Pima
Arkansas	Cleburne, Conway, Faulkner, Missis- sippi, Perry, Pope, Van Buren, White
California	Merced, Riverside, Sacramento, Solano, Yuba
Colorado	Logan, Weld
Florida	Dade, Hillsborough, Orange
Georgia	Houston
Idaho	Elmore
Indiana	Cass, Miami
Kansas	Butler, Cowley, Harper, Kingman, Reno, Saline, Sedgwick, Shawnee, Sumner
Louisiana	Bossier, Caddo
Maine	Aroostock, York
Massachusetts	Hamden, Hampshire
Michigan	Chippewa, Iosco, Marquette
Mississippi	Lowndes
Missouri	Bates, Benton, Cass, Cedar, Cooper, Henry, Johnson, Lafayette, Moniteau, Morgan, Pemiscot, Pettis, St. Clair, Saline, Vernon
Montana	Cascade, Fergus, Judith Basin, Lewis & Clark, Pondera, Teton, Valley, Wheatland
Nebraska	Banner, Cheyenne, Kimball
New Hampshire	Rockingham

TABLE 1 (Continued)

<u>State</u>	<u>Counties</u>
New Jersey	Burlington, Ocean
New Mexico	Chaves
New York	Clinton, Oneida
North Carolina	Wayne
North Dakota	Barnes, Bottineau, Burke, Cass, Cavalier, Eddy, Grand Forks, Griggs, McHenry, McLean, Mountrail, Nelson, Ramsey, Renville, Sheridan, Steele, Walsh, Ward
Ohio	Franklin, Greene, Montgomery, Pickaway
Oklahoma	Jackson, Washita
South Carolina	Charleston
South Dakota	Butte, Haakon, Jackson, Lawrence Meade, Pennington, Perkins
Texas	Potter, Randall, Tarrant, Taylor, Travis, Wichita
Utah	Davis, Weber
Washington	Kitsap, Spokane
Wyoming	Goshen, Laramie, Platte

MAP NOTES

The following maps (Figures 1-31) are constructed using state maps taken from the Congressional District Atlas - Districts of the 95th Congress. These maps possess all the original detail contained in that document. The dark areas represent counties which are divided among two or more congressional districts. These specific areas are not pertinent to this report. Added to the initial detail are the blast areas which are identified by cross-hatching or by a small dark area contained in a circle.



⊙ STATE CAPITAL

CONGRESSIONAL DISTRICT AFFECTED - 2

FIGURE 1. BLAST AREAS IN ARIZONA

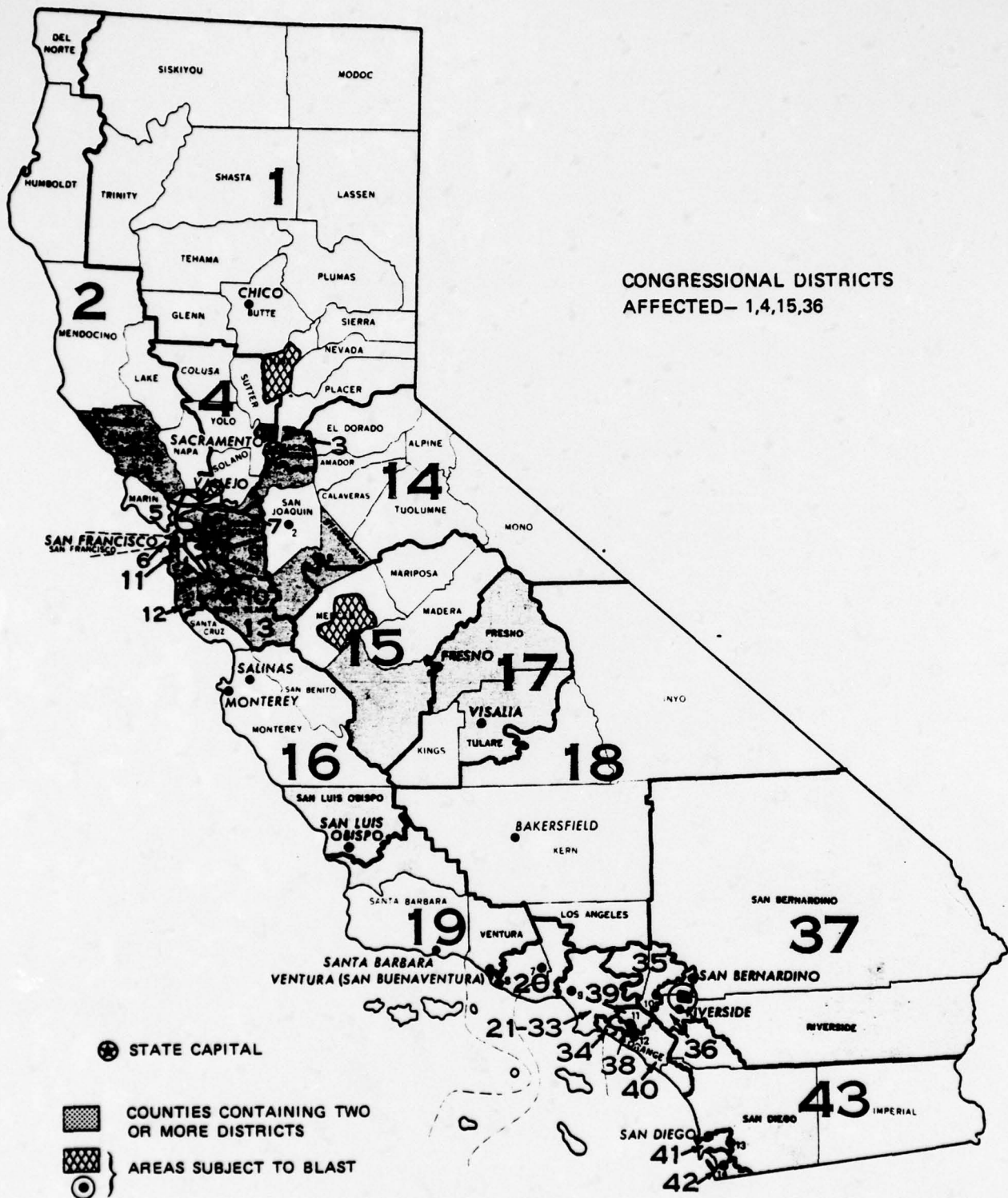
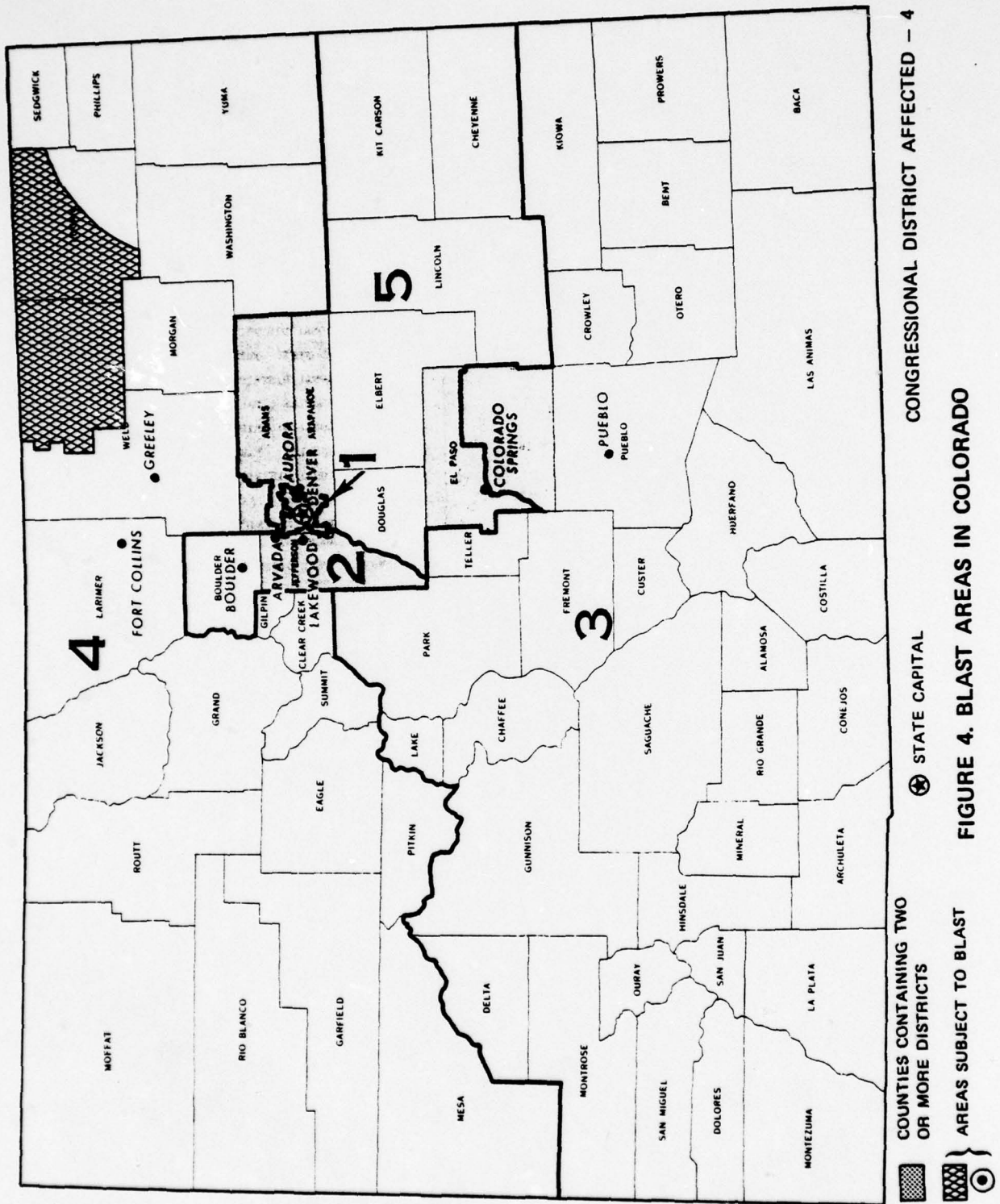


FIGURE 3. BLAST AREAS IN CALIFORNIA



CONGRESSIONAL DISTRICT AFFECTED - 4

FIGURE 4. BLAST AREAS IN COLORADO

COUNTIES CONTAINING TWO OR MORE DISTRICTS

AREAS SUBJECT TO BLAST

STATE CAPITAL

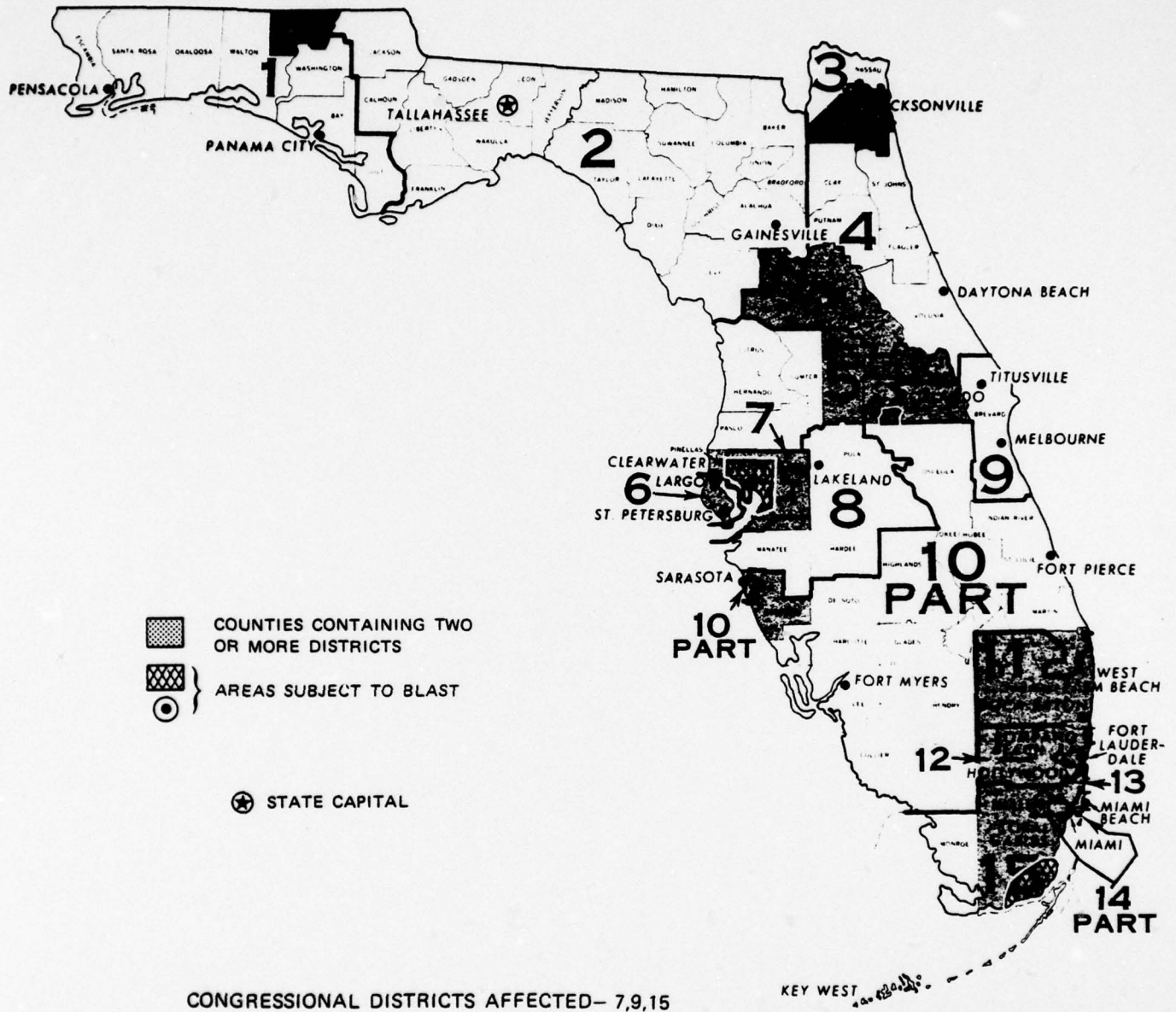
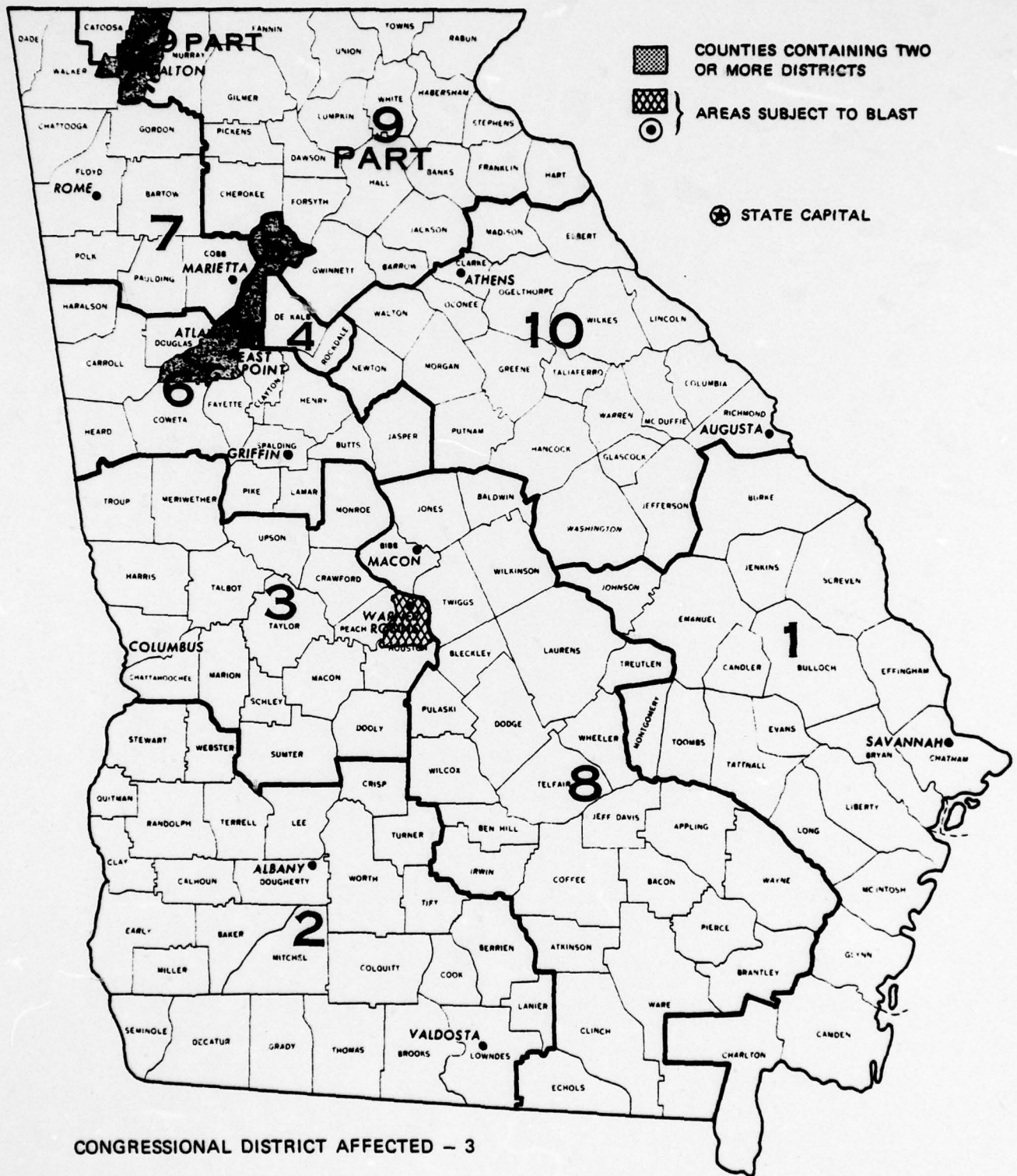


FIGURE 5. BLAST AREAS IN FLORIDA



CONGRESSIONAL DISTRICT AFFECTED - 3

FIGURE 6. BLAST AREAS IN GEORGIA

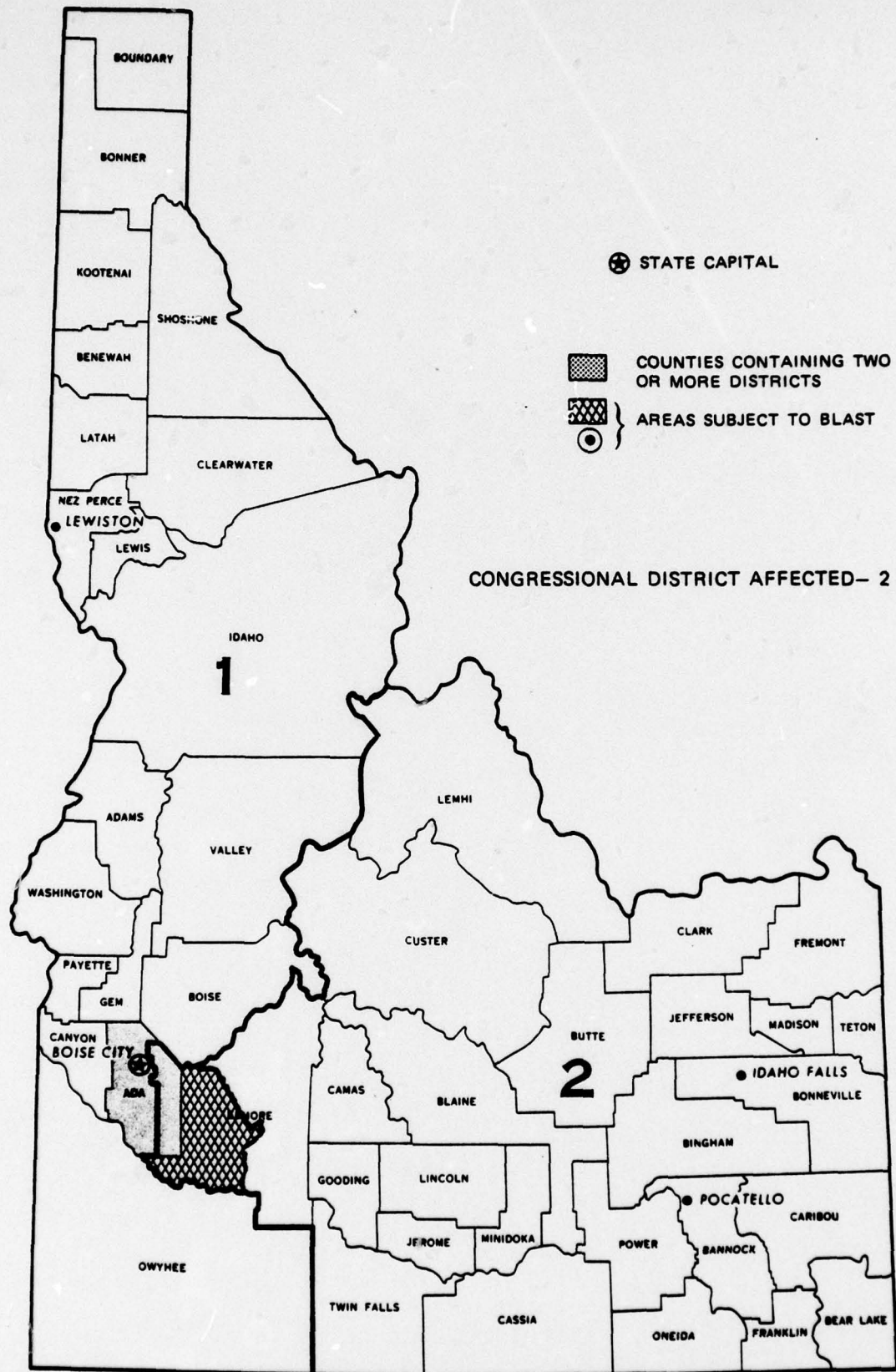


FIGURE 7. BLAST AREAS IN IDAHO

CONGRESSIONAL
DISTRICT
AFFECTED—5

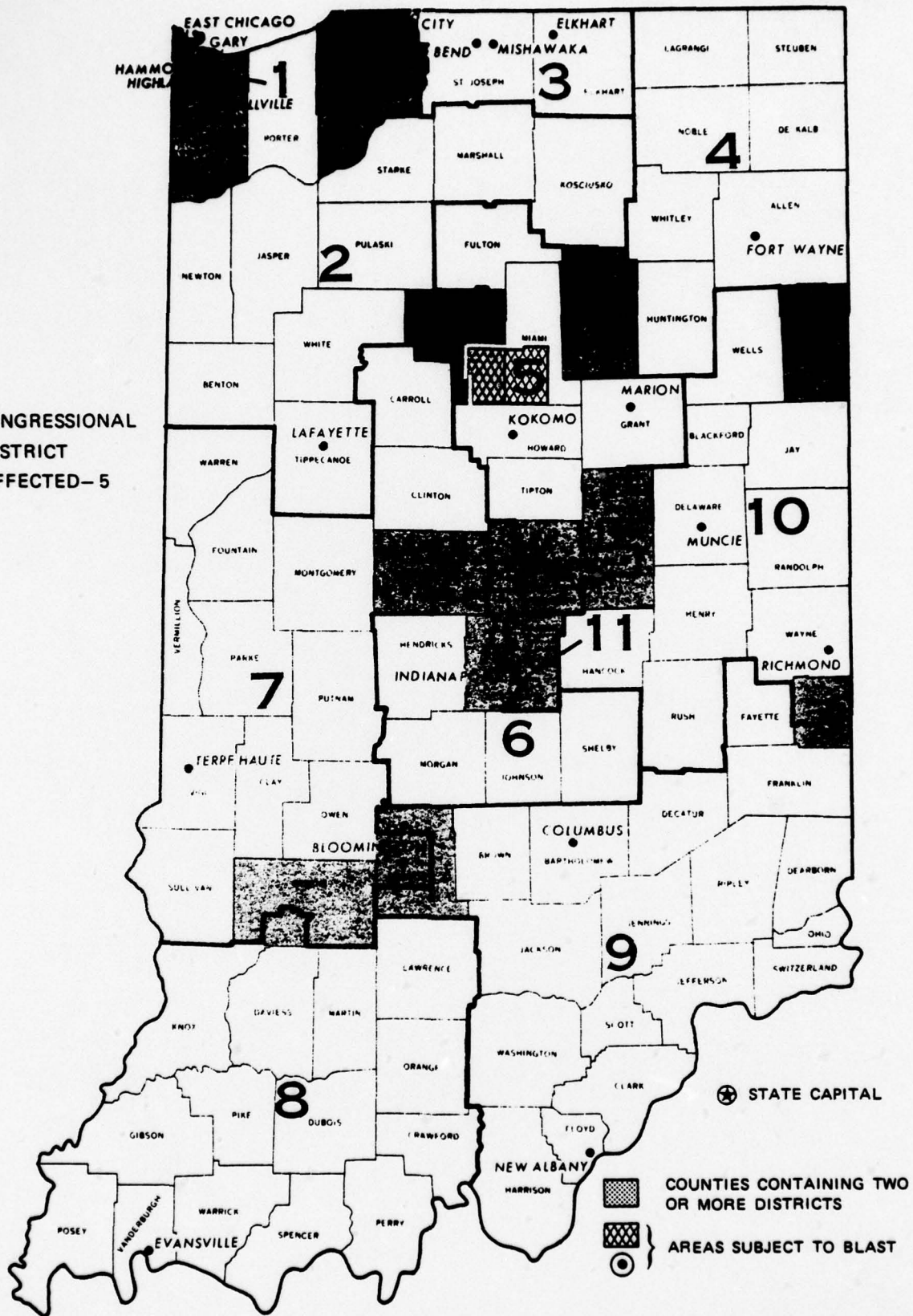
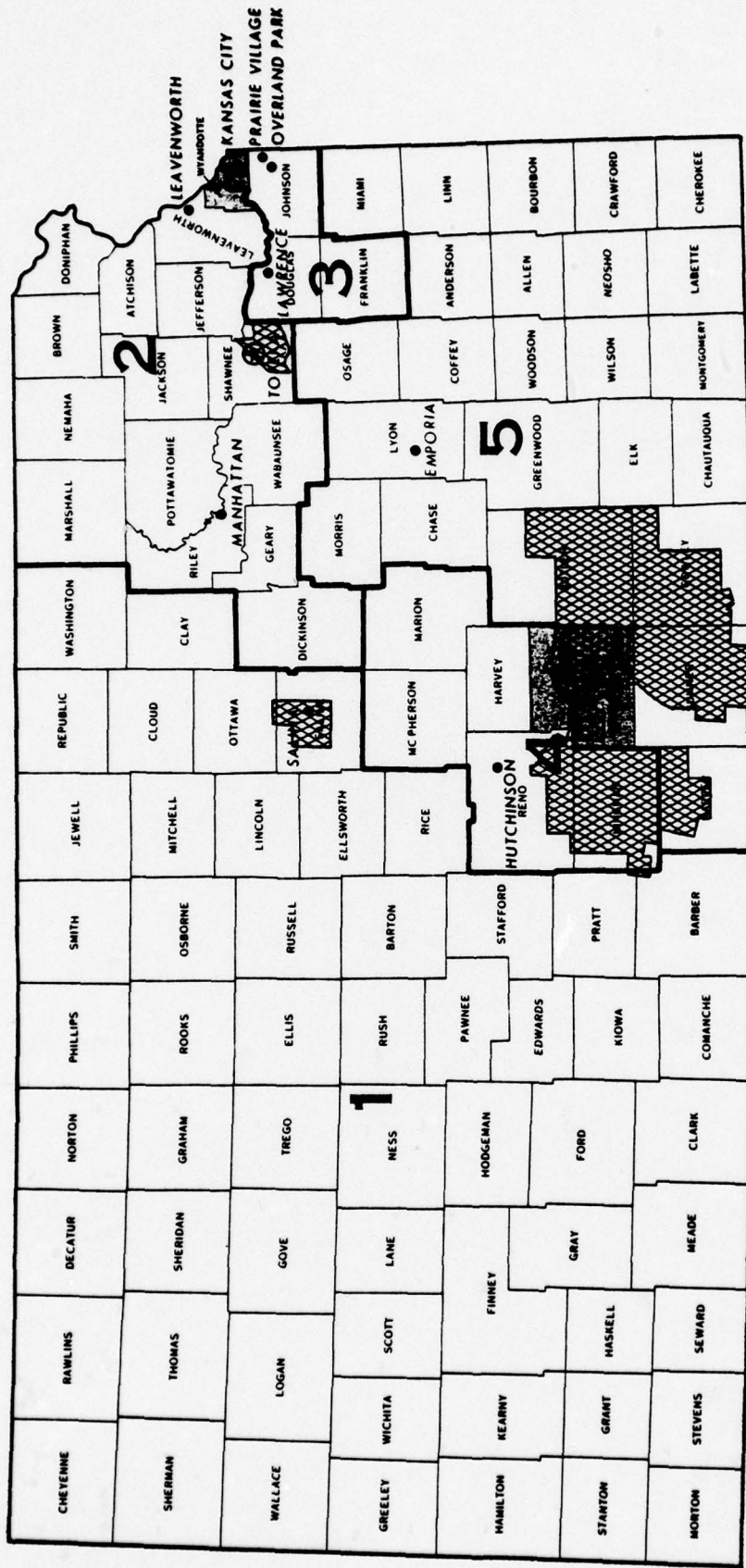


FIGURE 8. BLAST AREAS IN INDIANA



⊞ COUNTIES CONTAINING TWO OR MORE DISTRICTS
 ▨ AREAS SUBJECT TO BLAST
 ⊙ STATE CAPITAL
 CONGRESSIONAL DISTRICTS AFFECTED—1,2,4,5

FIGURE 9. BLAST AREAS IN KANSAS

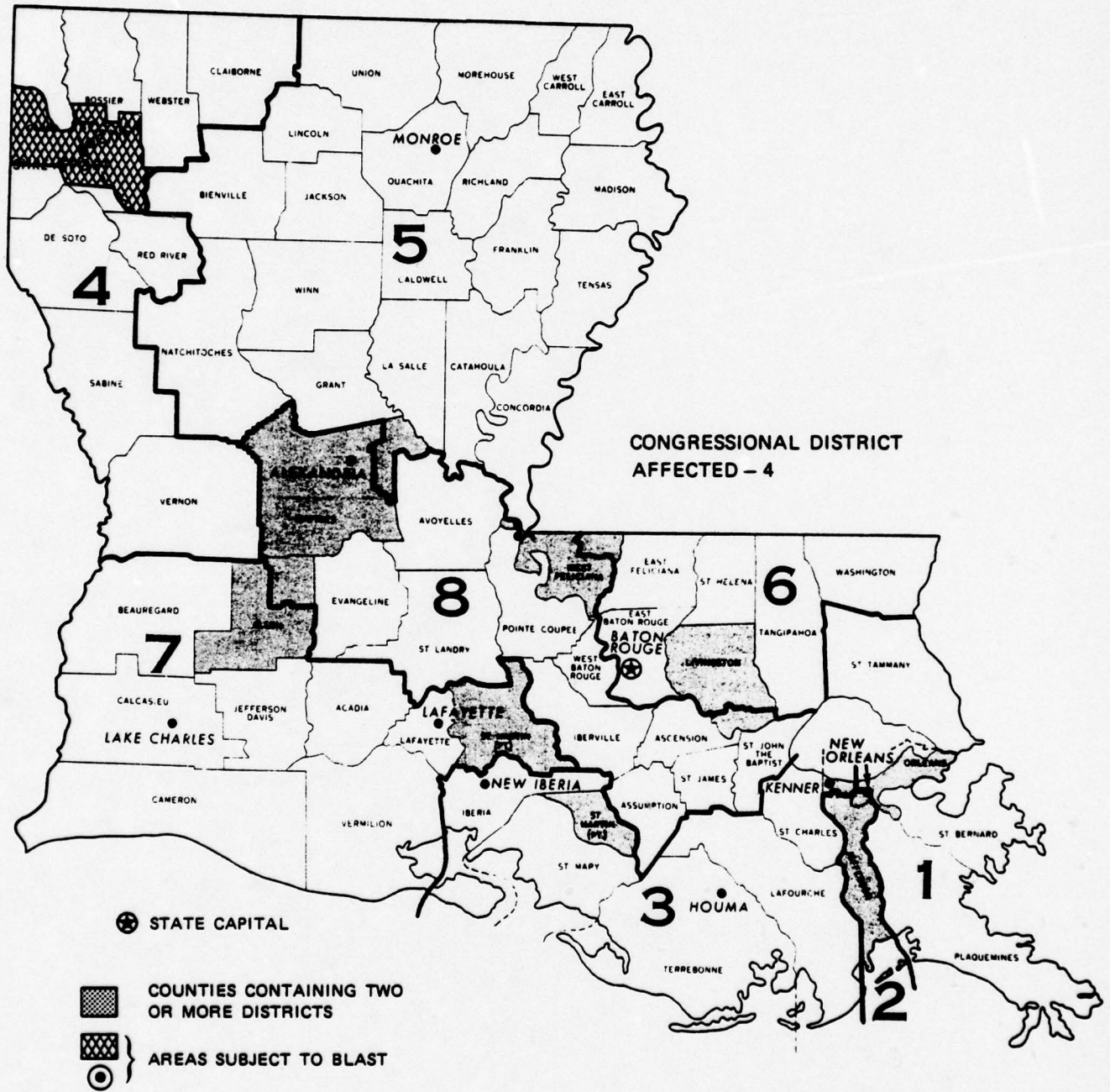


FIGURE 10. BLAST AREAS IN LOUISIANA

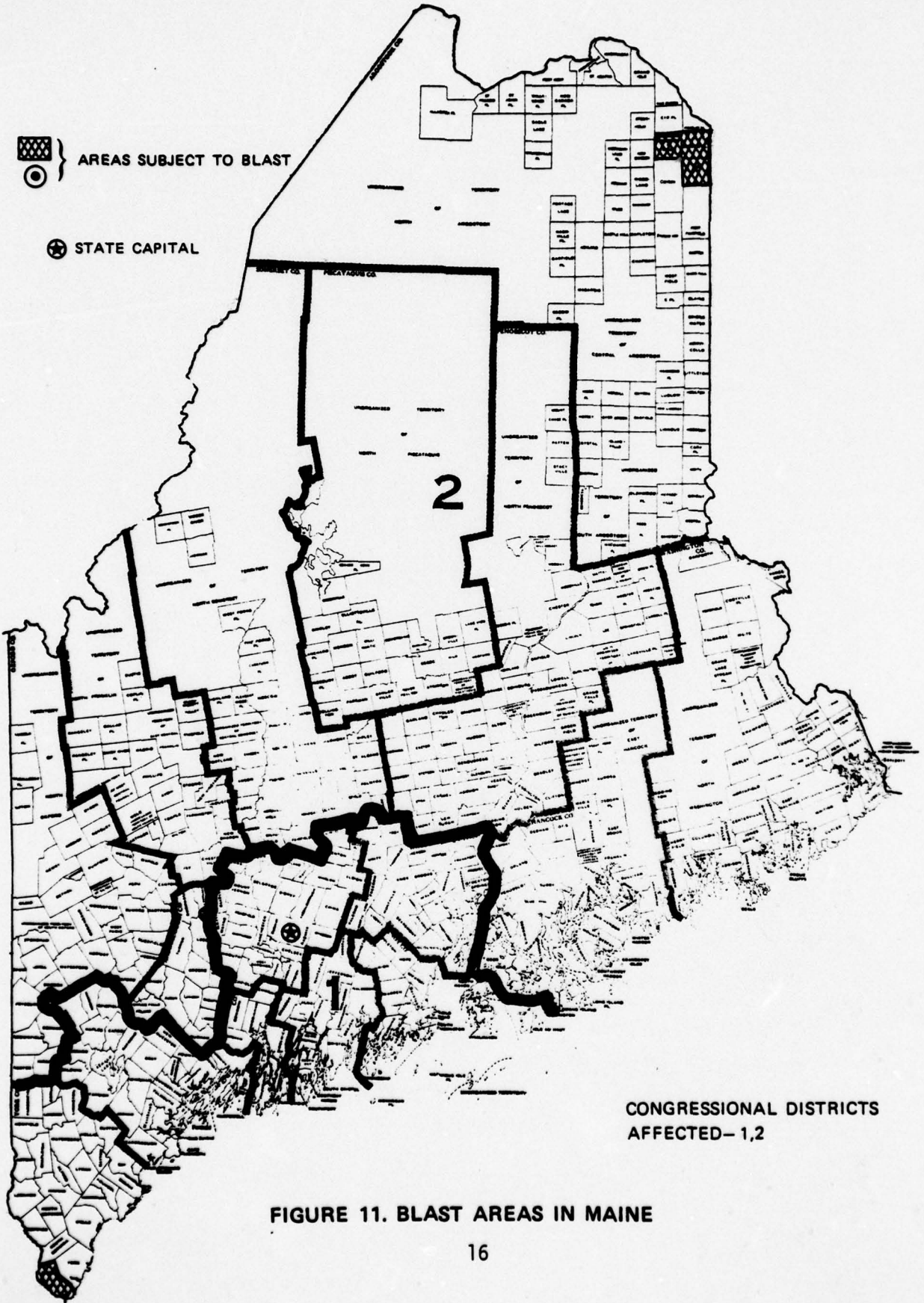
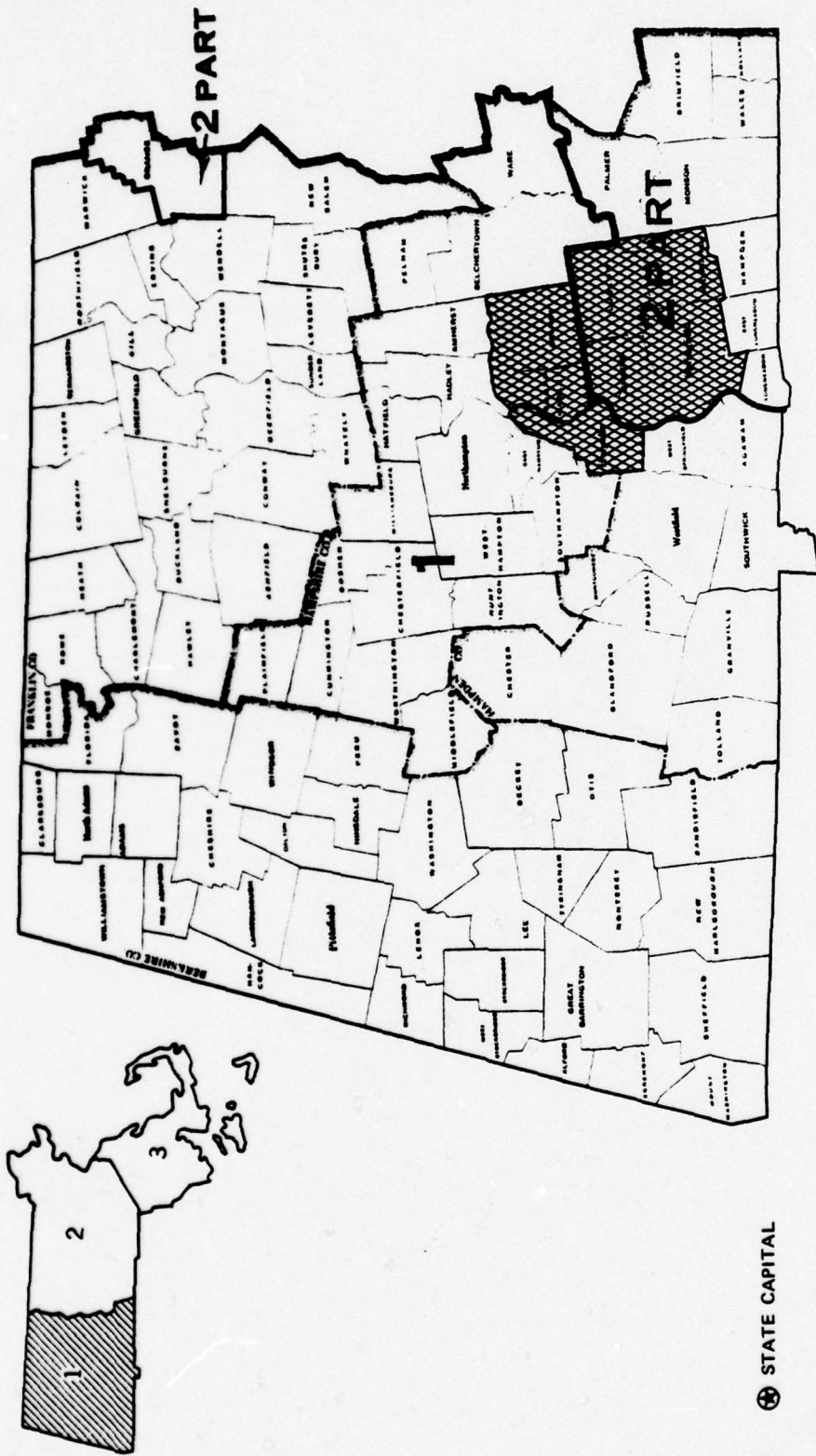


FIGURE 11. BLAST AREAS IN MAINE



AREAS SUBJECT TO BLAST CONGRESSIONAL DISTRICTS AFFECTED—1,2

FIGURE 12. BLAST AREAS IN MASSACHUSETTS (WESTERN PART)
(Eastern Sections do not Contain any Counterforce Targets)

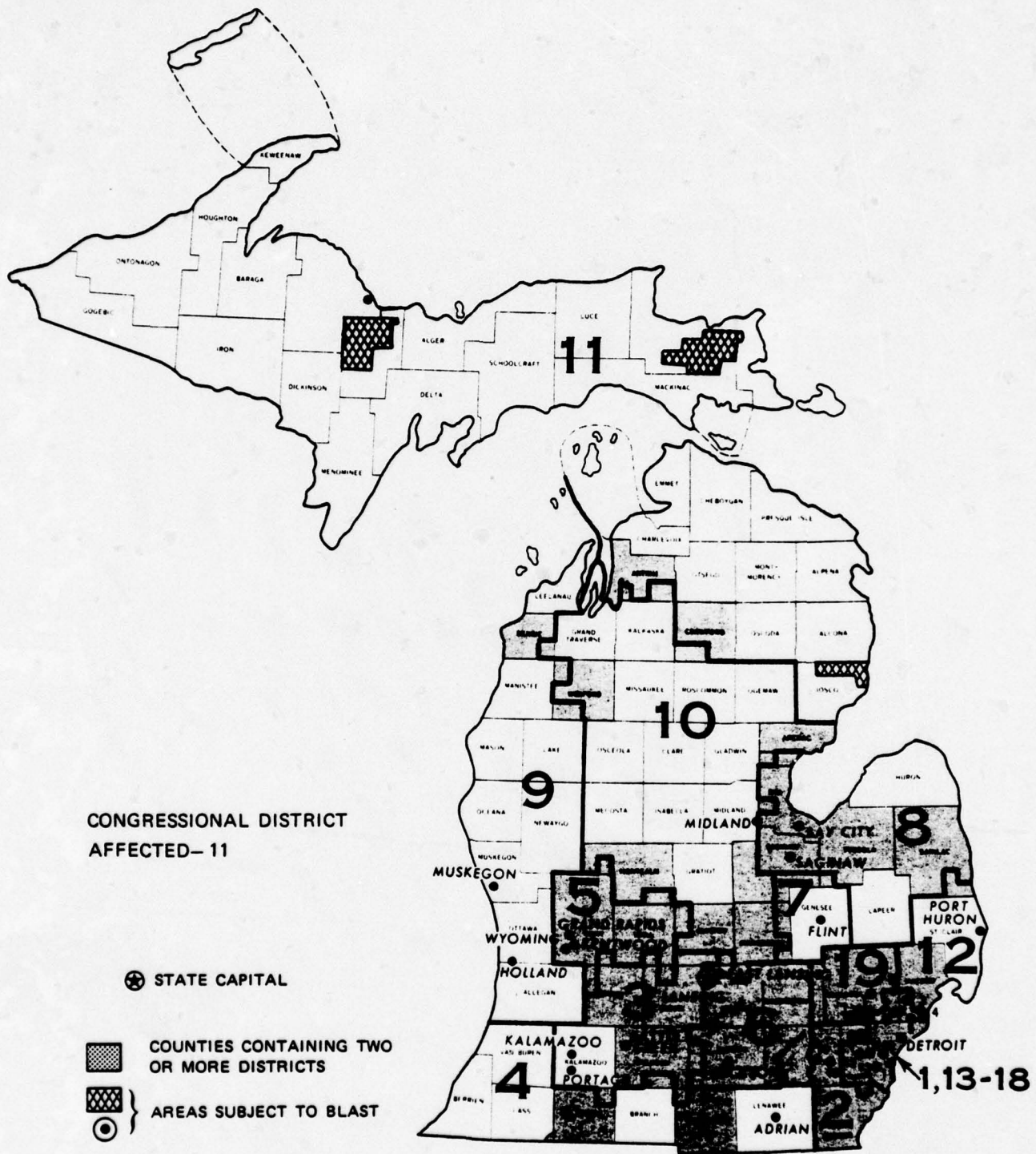
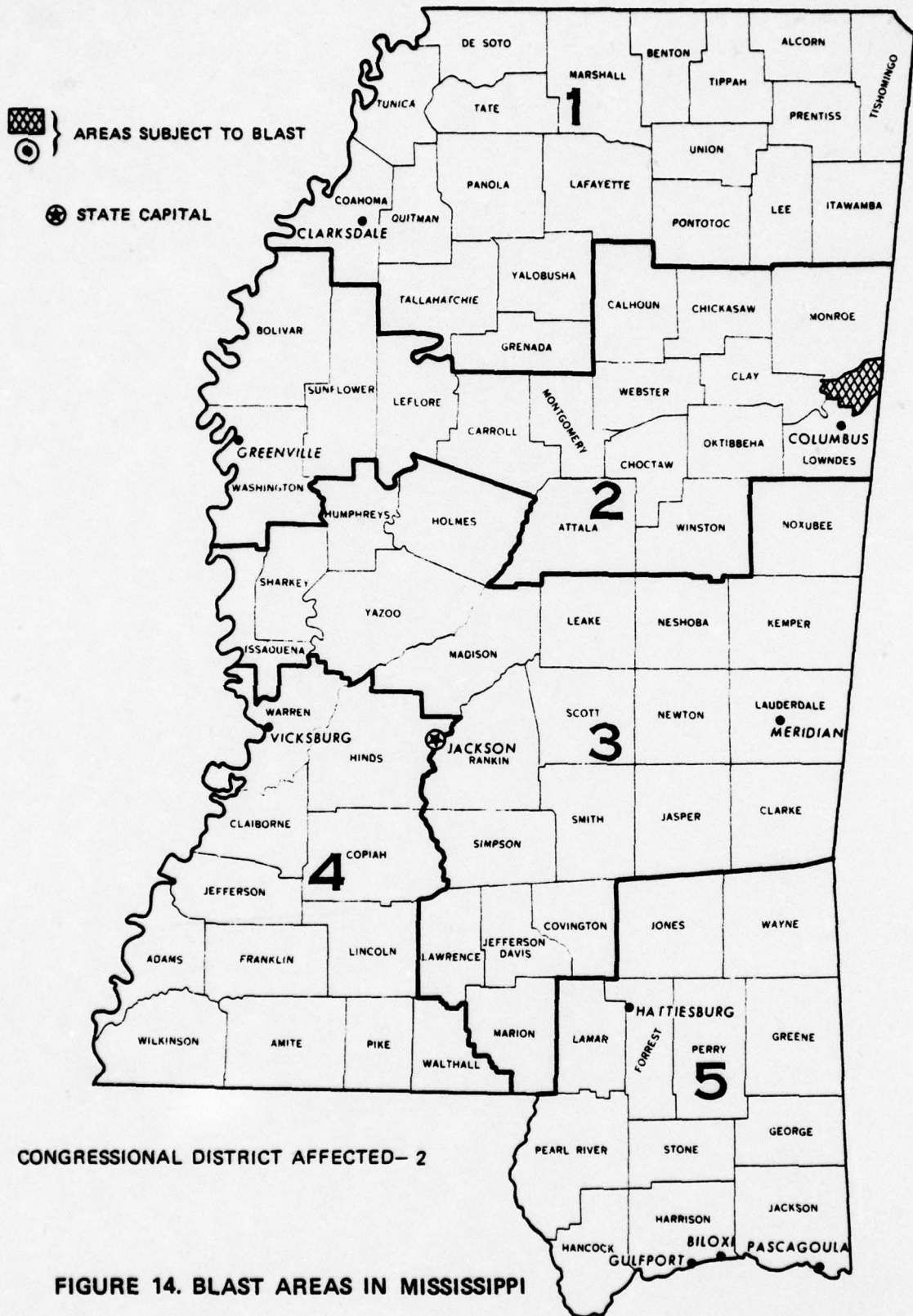
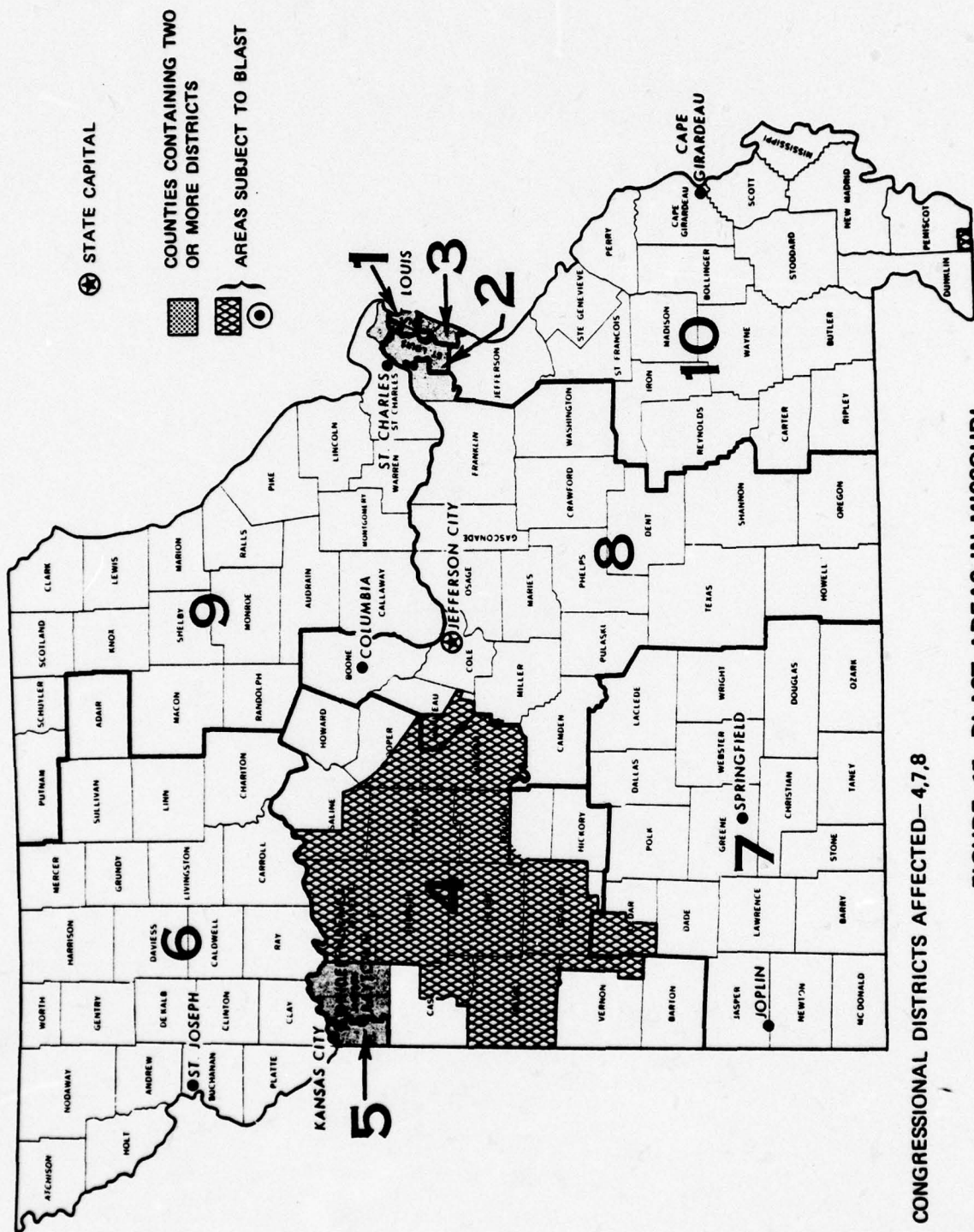


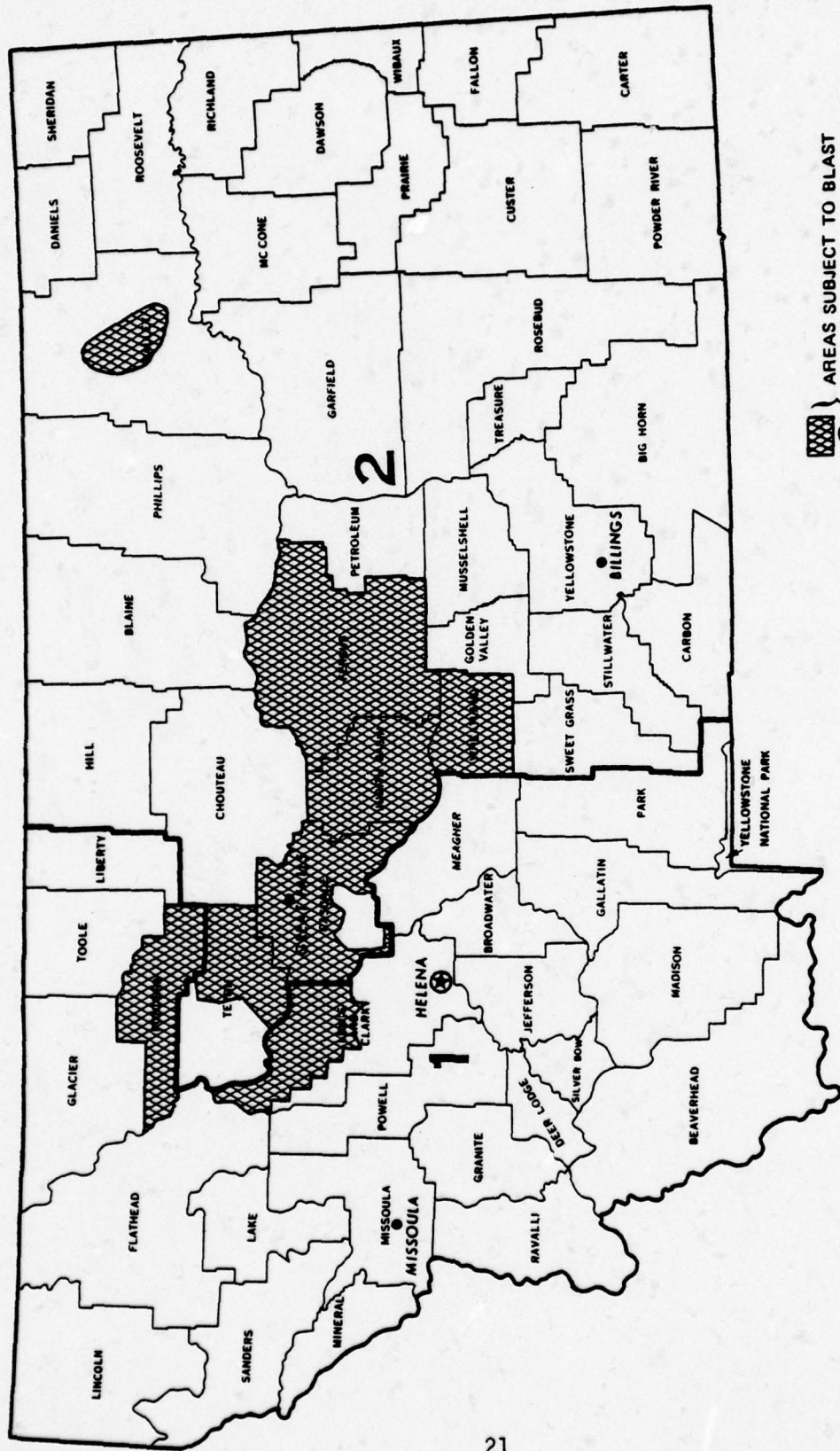
FIGURE 13. BLAST AREAS IN MICHIGAN






CONGRESSIONAL DISTRICTS AFFECTED—4,7,8

FIGURE 15. BLAST AREAS IN MISSOURI

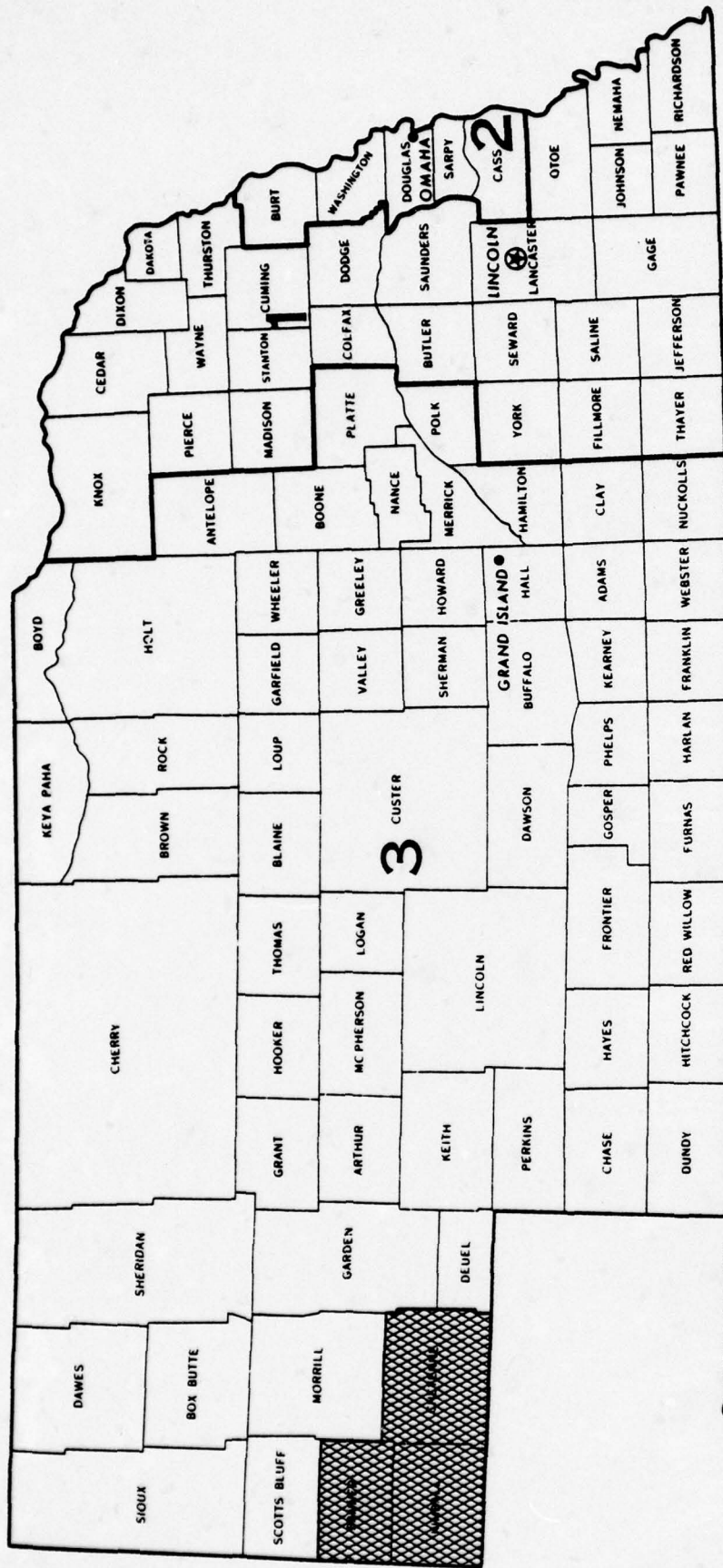


 } AREAS SUBJECT TO BLAST


 STATE CAPITAL

CONGRESSIONAL DISTRICTS AFFECTED—1,2

FIGURE 16. BLAST AREAS IN MONTANA



★ STATE CAPITAL

▨ } AREAS SUBJECT TO BLAST
 ○

CONGRESSIONAL DISTRICT AFFECTED - 3

FIGURE 17. BLAST AREAS IN NEBRASKA

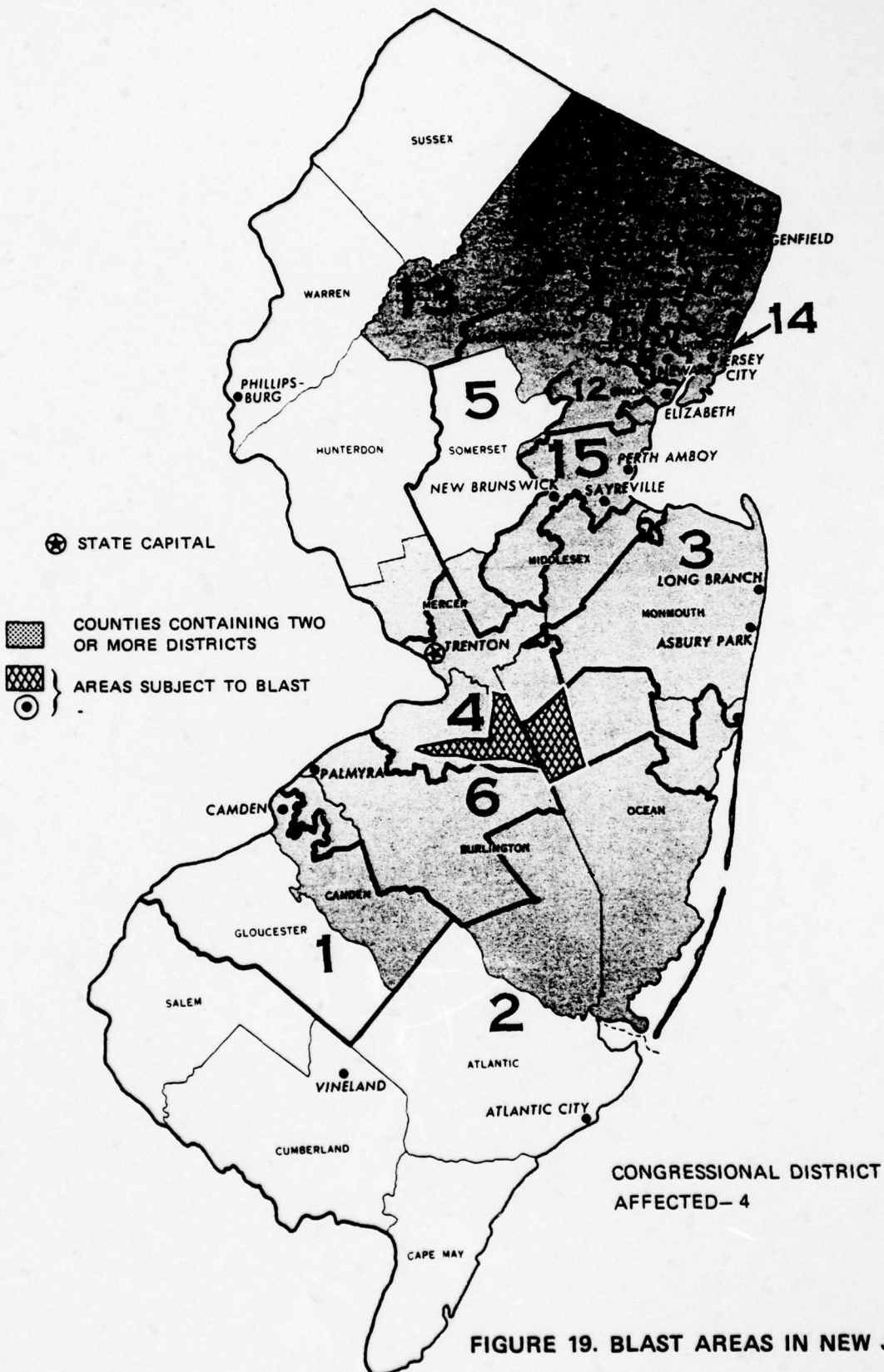
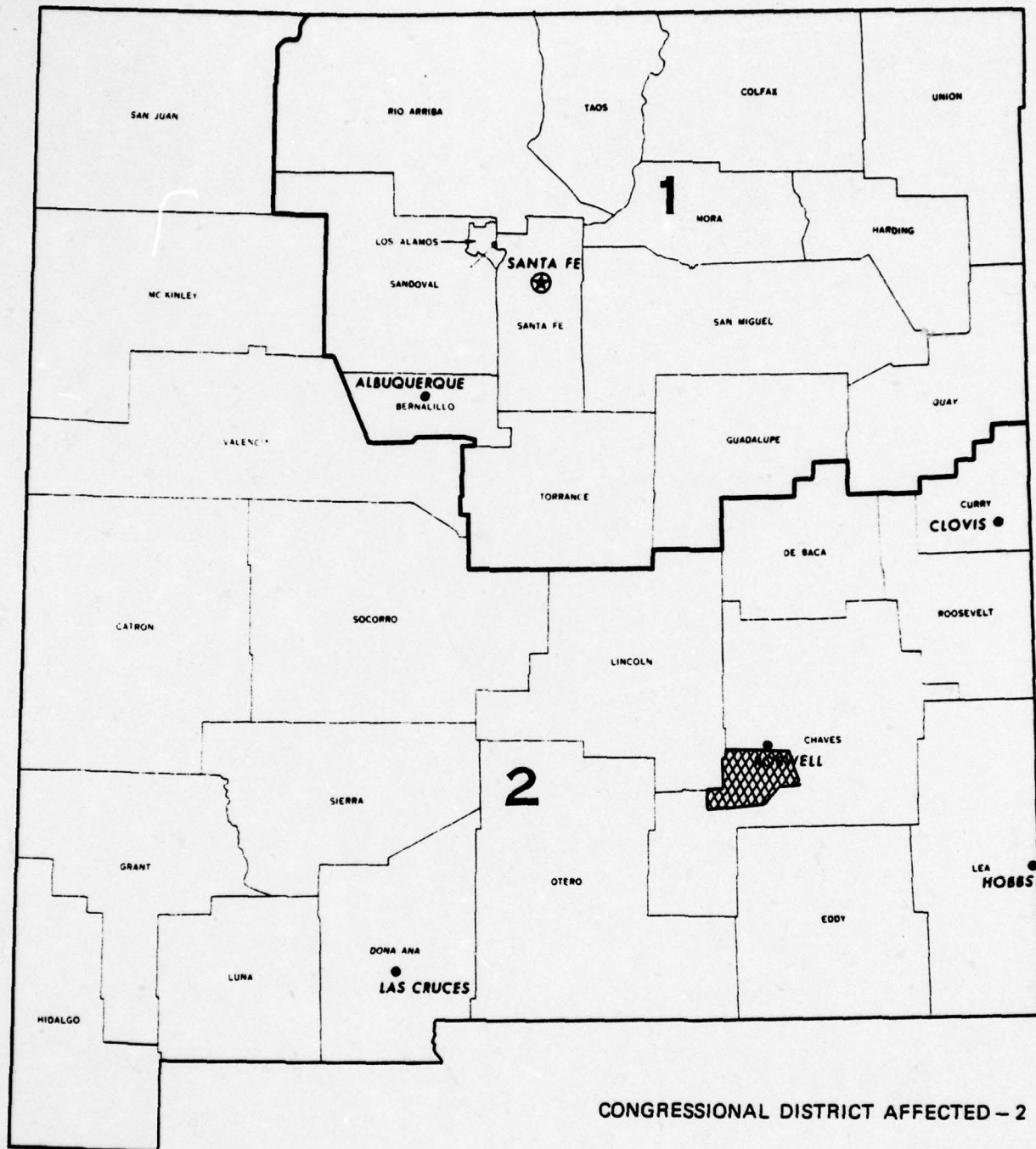




FIGURE 19. BLAST AREAS IN NEW JERSEY



CONGRESSIONAL DISTRICT AFFECTED - 2

 } AREAS SUBJECT TO BLAST



 STATE CAPITAL

FIGURE 20. BLAST AREAS IN NEW MEXICO

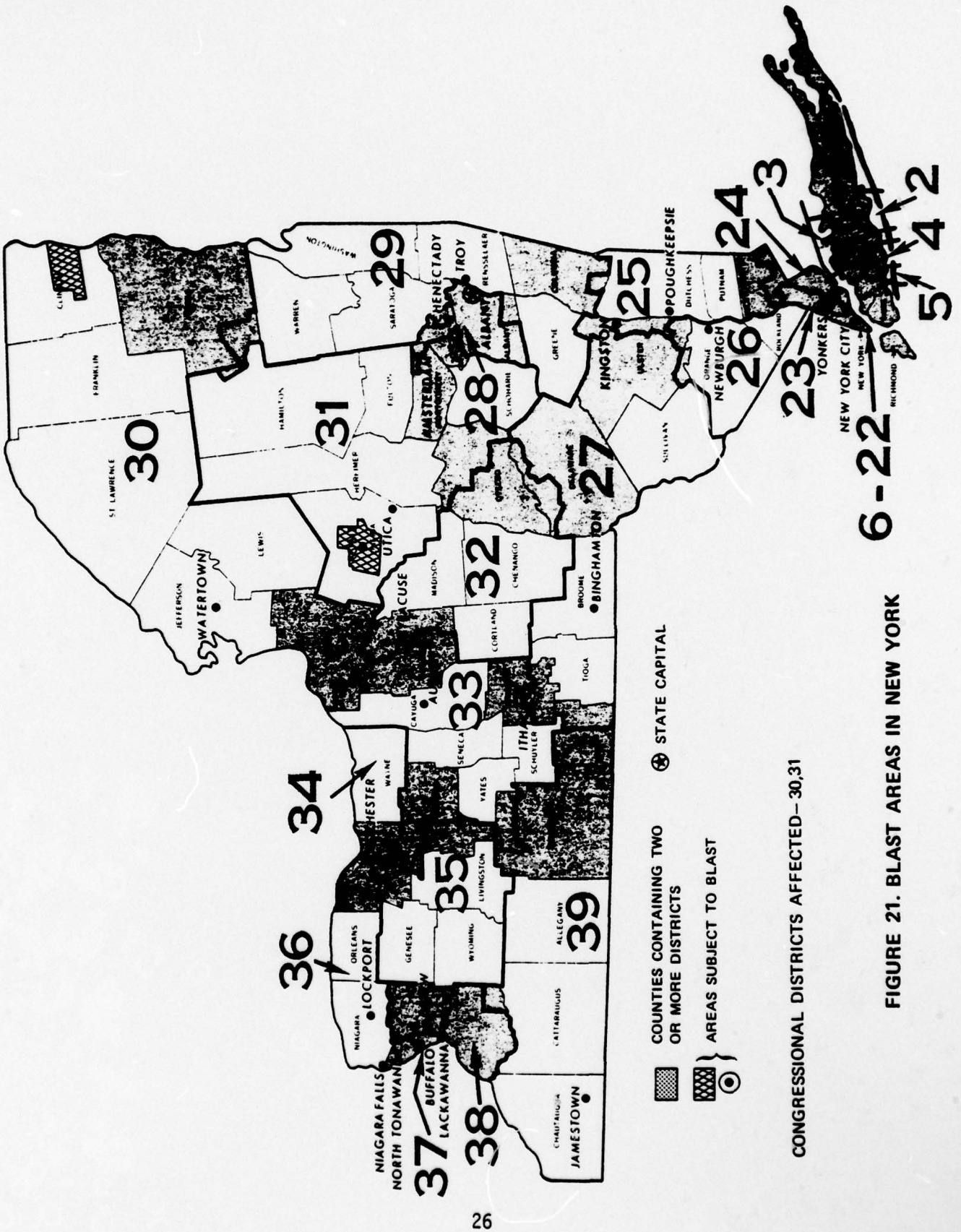
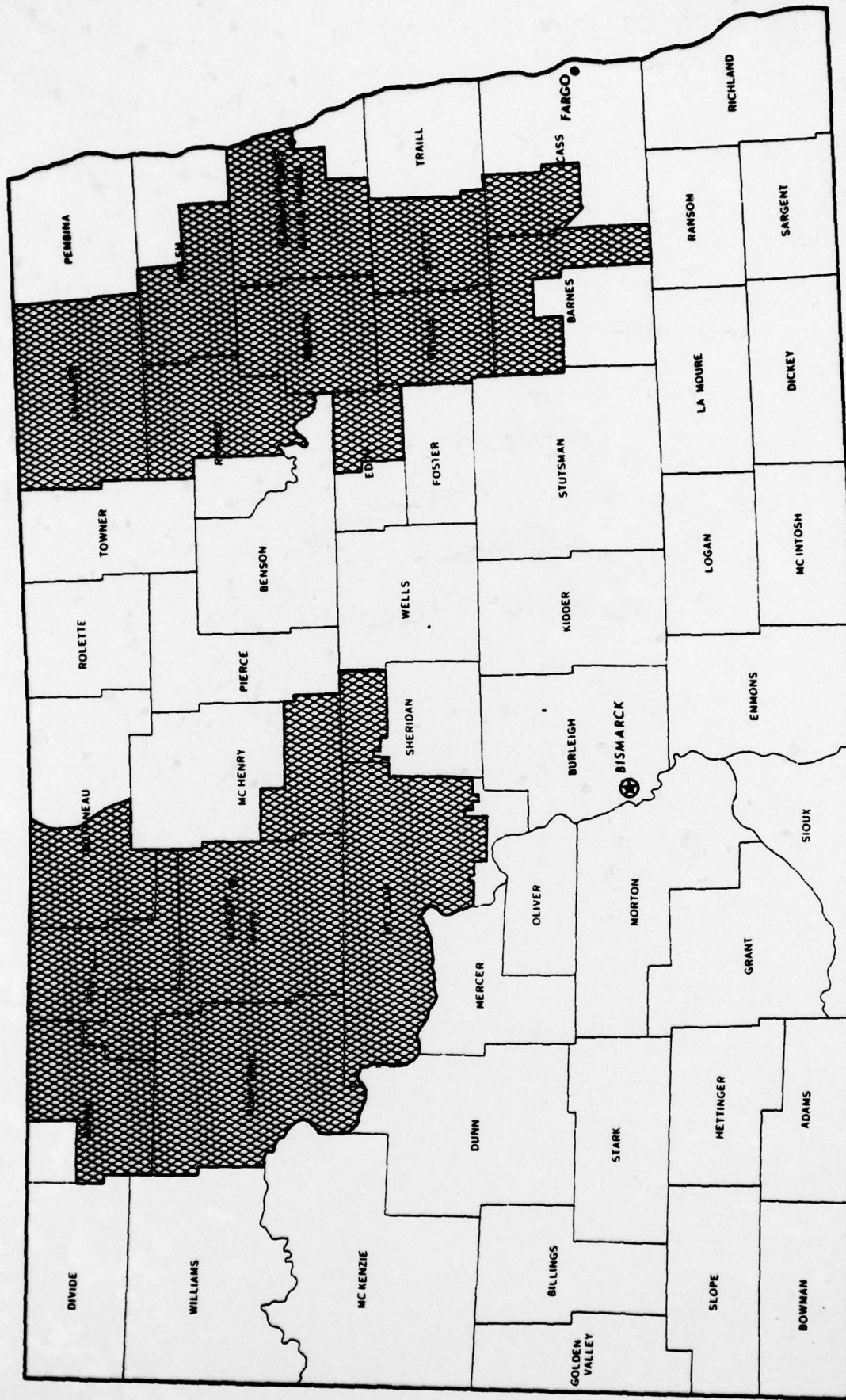


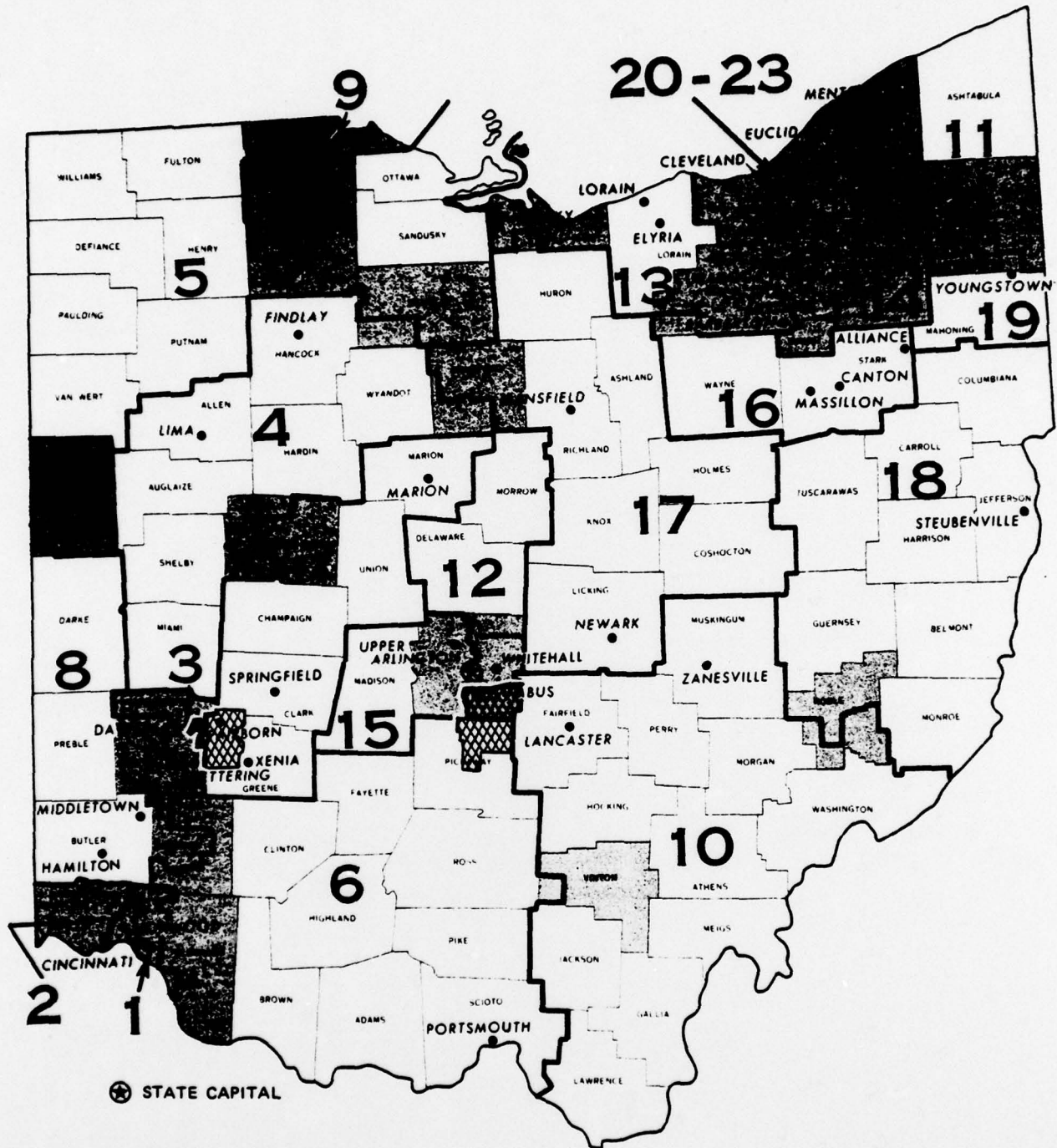
FIGURE 21. BLAST AREAS IN NEW YORK




CONGRESSIONAL DISTRICTS AFFECTED—30,31



 AREAS SUBJECT TO BLAST
  STATE CAPITAL

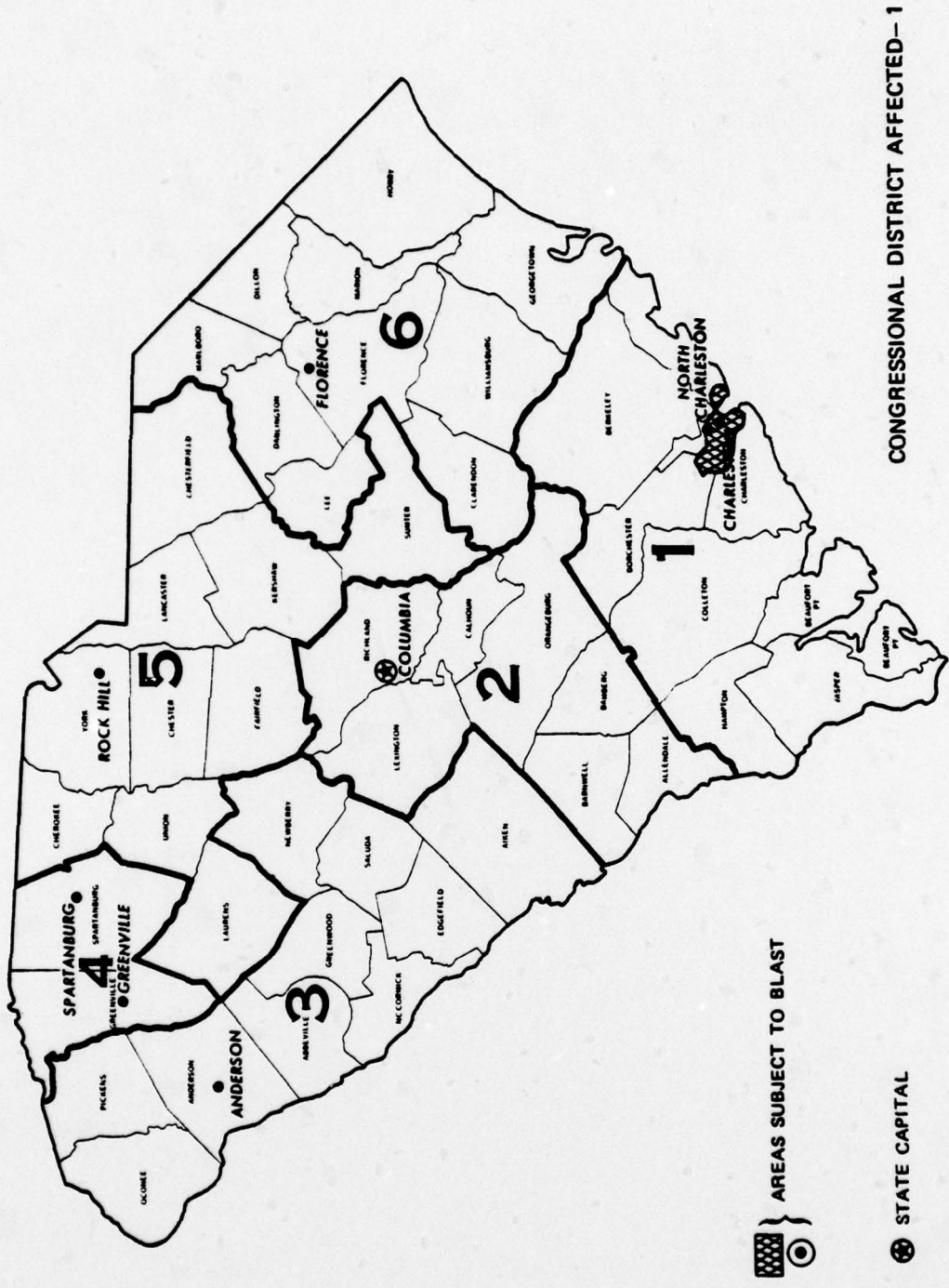
FIGURE 23. BLAST AREAS IN NORTH DAKOTA (North Dakota has one U.S. Representative)



-  STATE CAPITAL
-  COUNTIES CONTAINING TWO OR MORE DISTRICTS
-  } AREAS SUBJECT TO BLAST

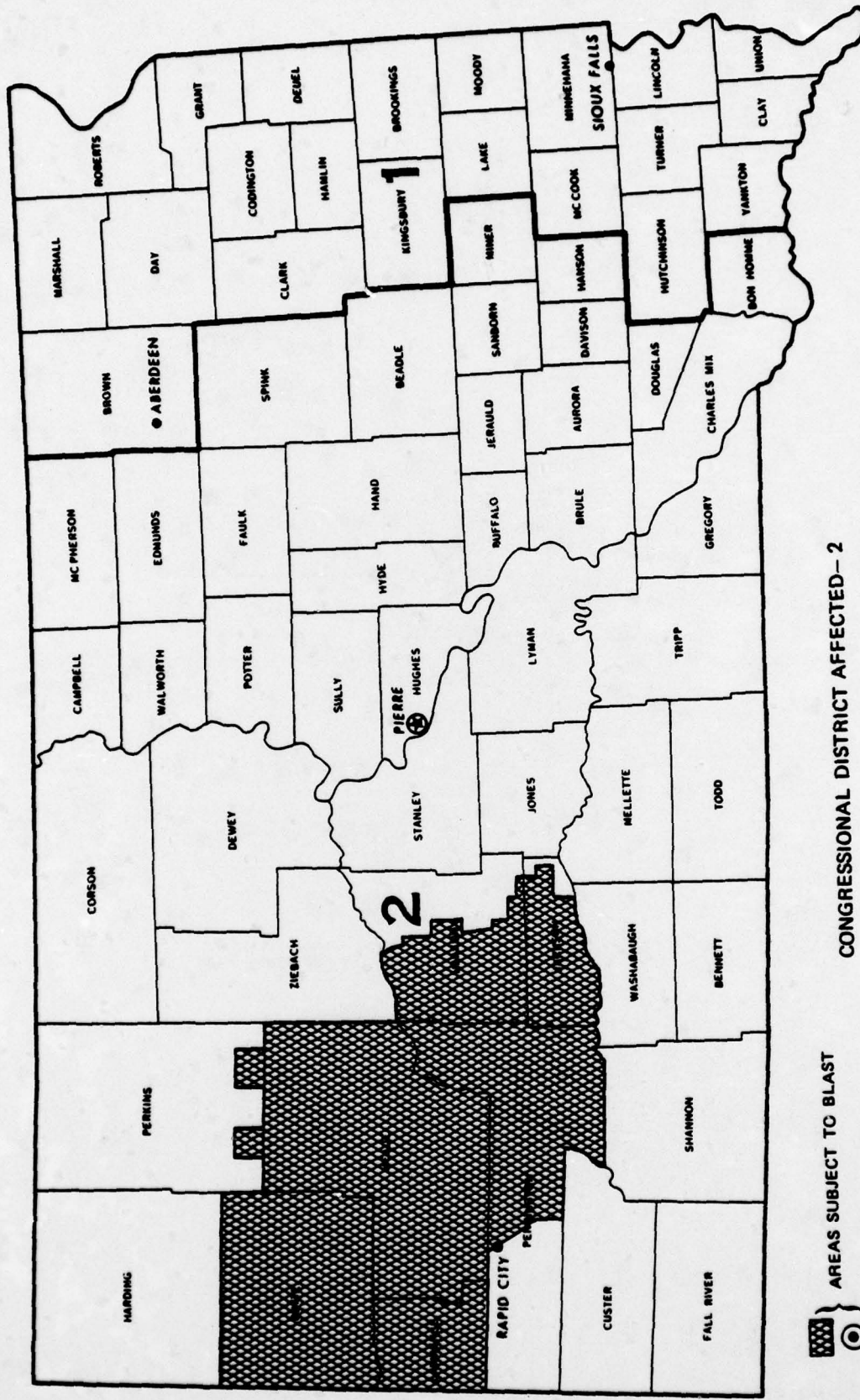
CONGRESSIONAL DISTRICTS AFFECTED— 6,7,12



FIGURE 24. BLAST AREAS IN OHIO

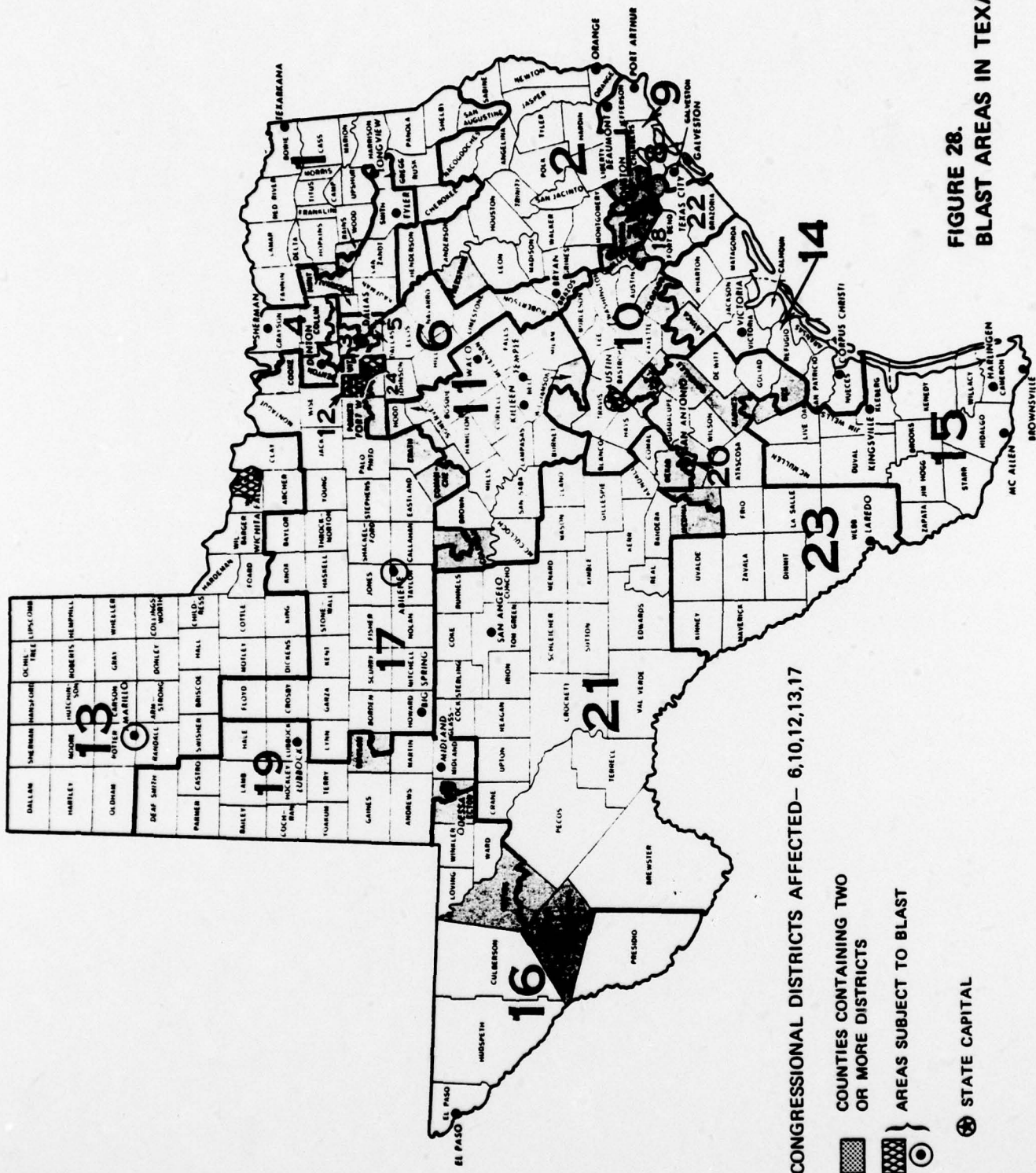


CONGRESSIONAL DISTRICT AFFECTED-1

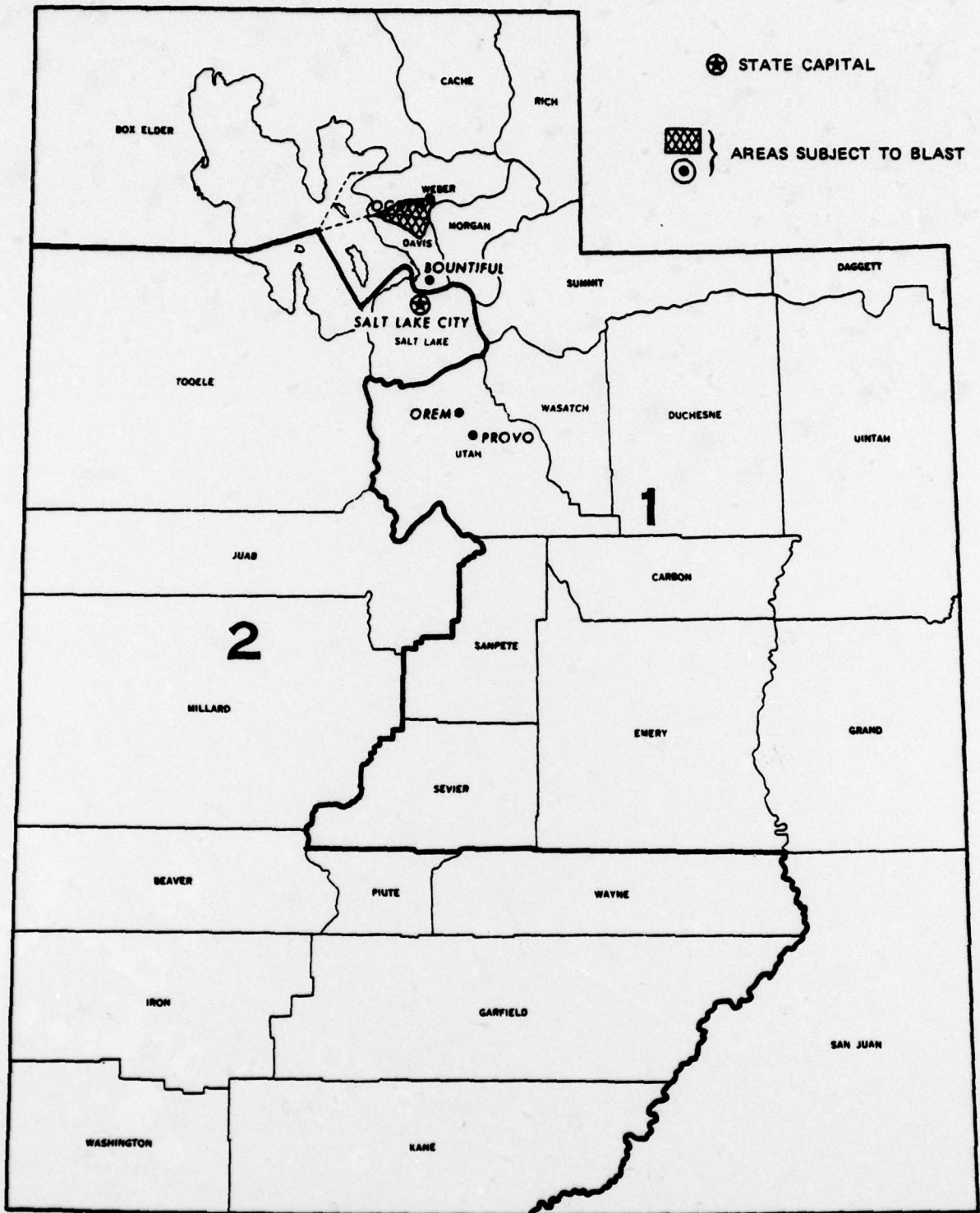
FIGURE 26. BLAST AREAS IN SOUTH CAROLINA



 AREAS SUBJECT TO BLAST
 STATE CAPITAL
 CONGRESSIONAL DISTRICT AFFECTED— 2
FIGURE 27. BLAST AREAS IN SOUTH DAKOTA



**FIGURE 28.
BLAST AREAS IN TEXAS**



CONGRESSIONAL DISTRICT AFFECTED- 1

FIGURE 29. BLAST AREAS IN UTAH

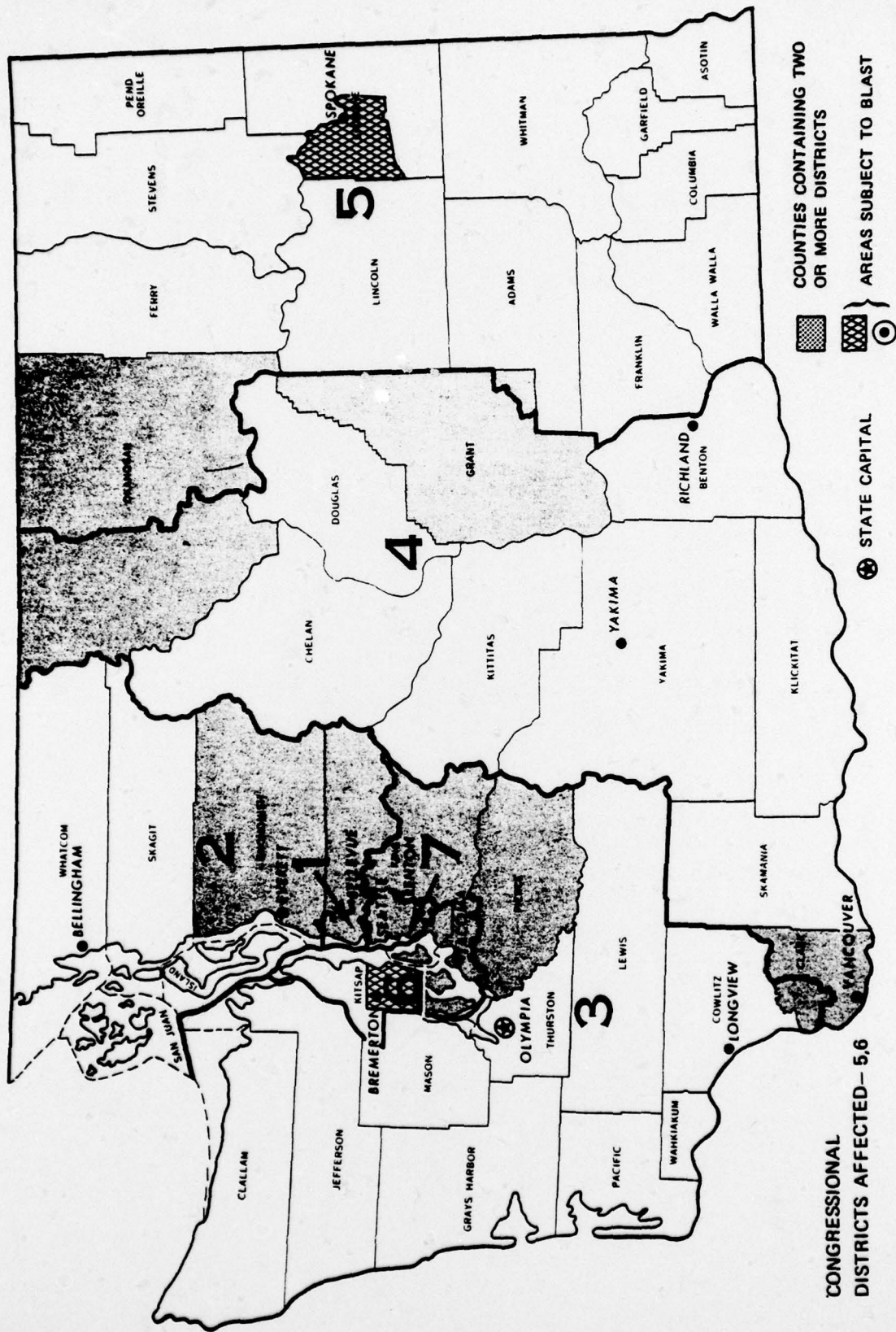
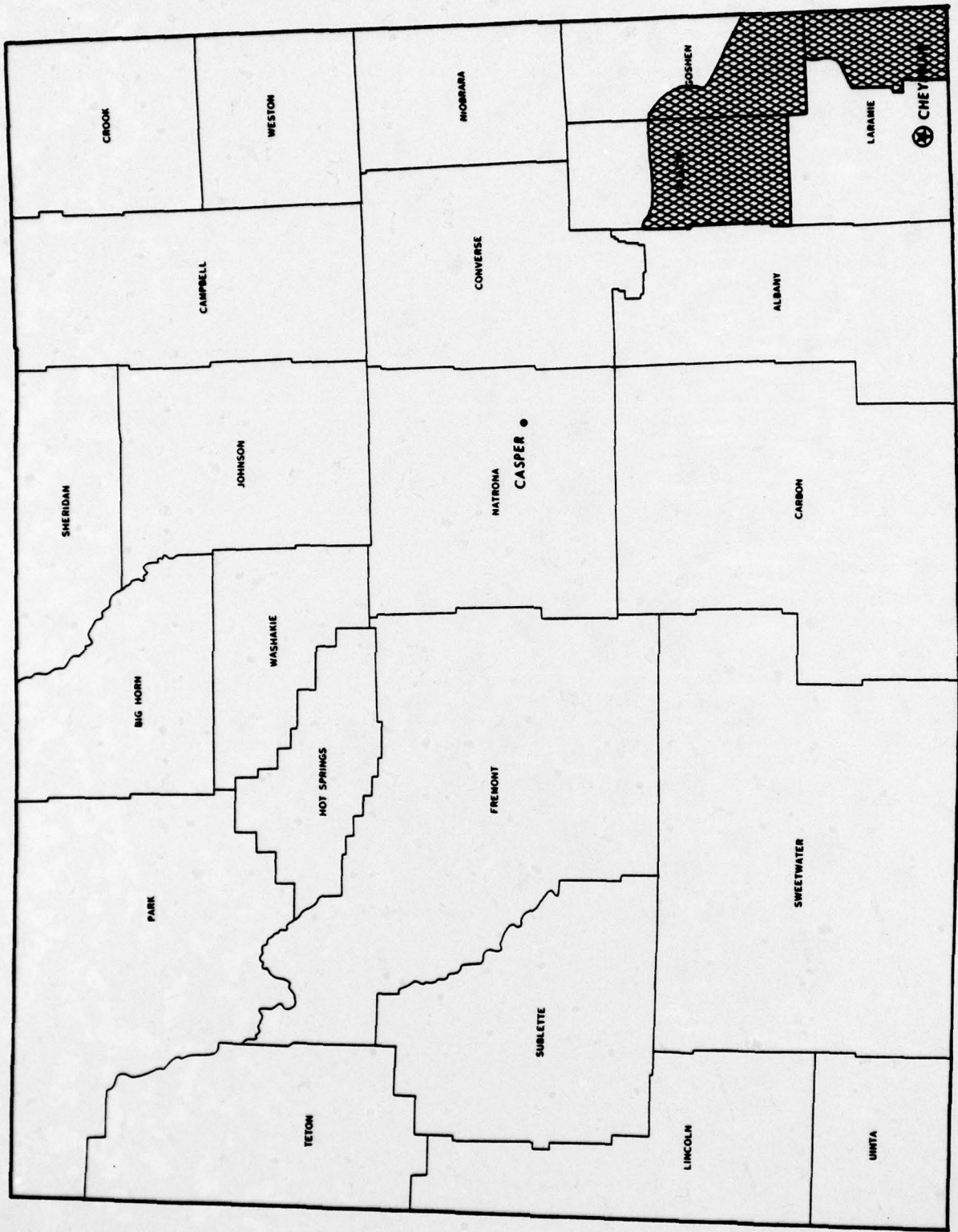


FIGURE 30. BLAST AREAS IN WASHINGTON



⊙ STATE CAPITAL

▨ AREAS SUBJECT TO BLAST

FIGURE 31. BLAST AREAS IN WYOMING (Wyoming has one U.S. Representative)

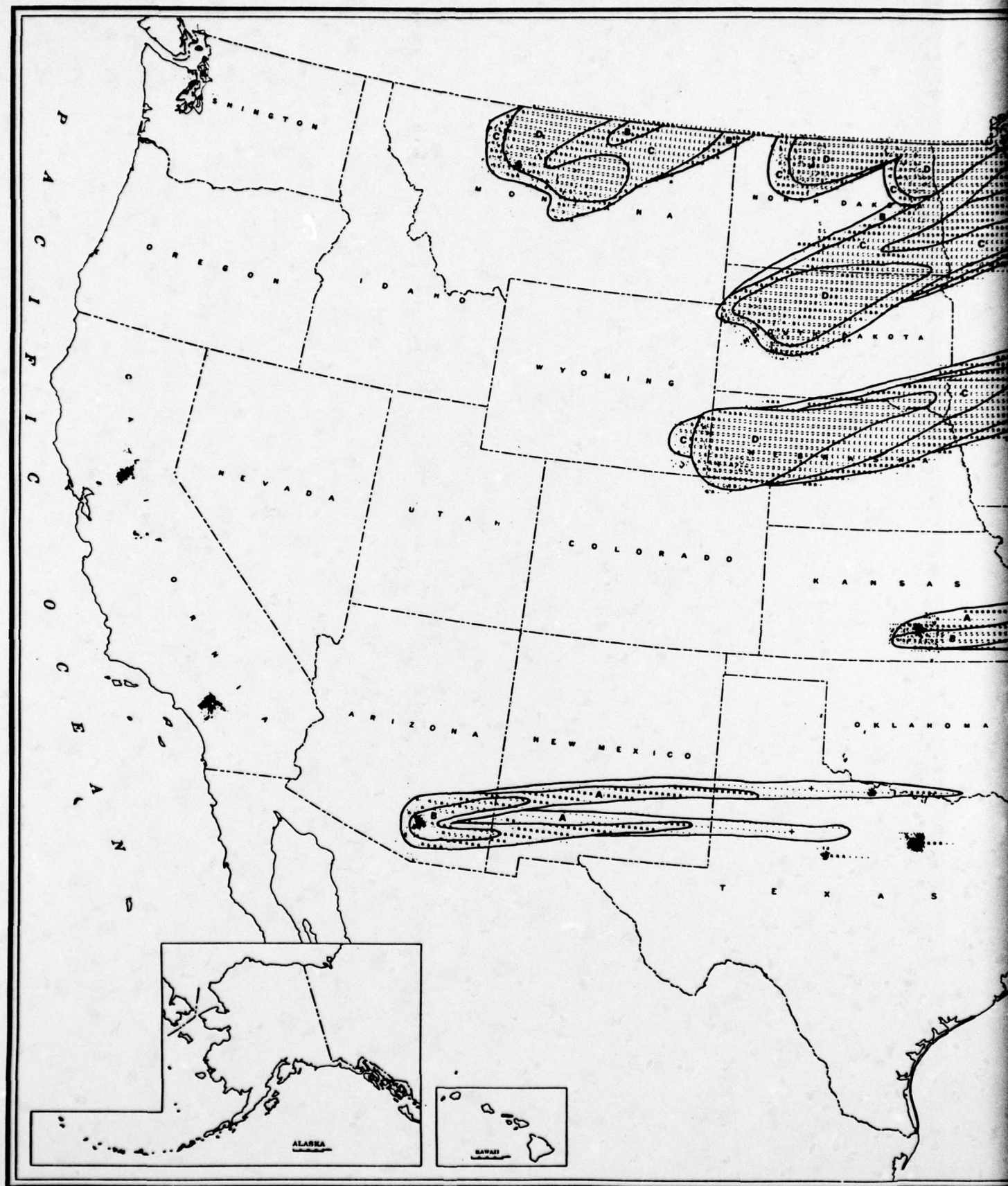
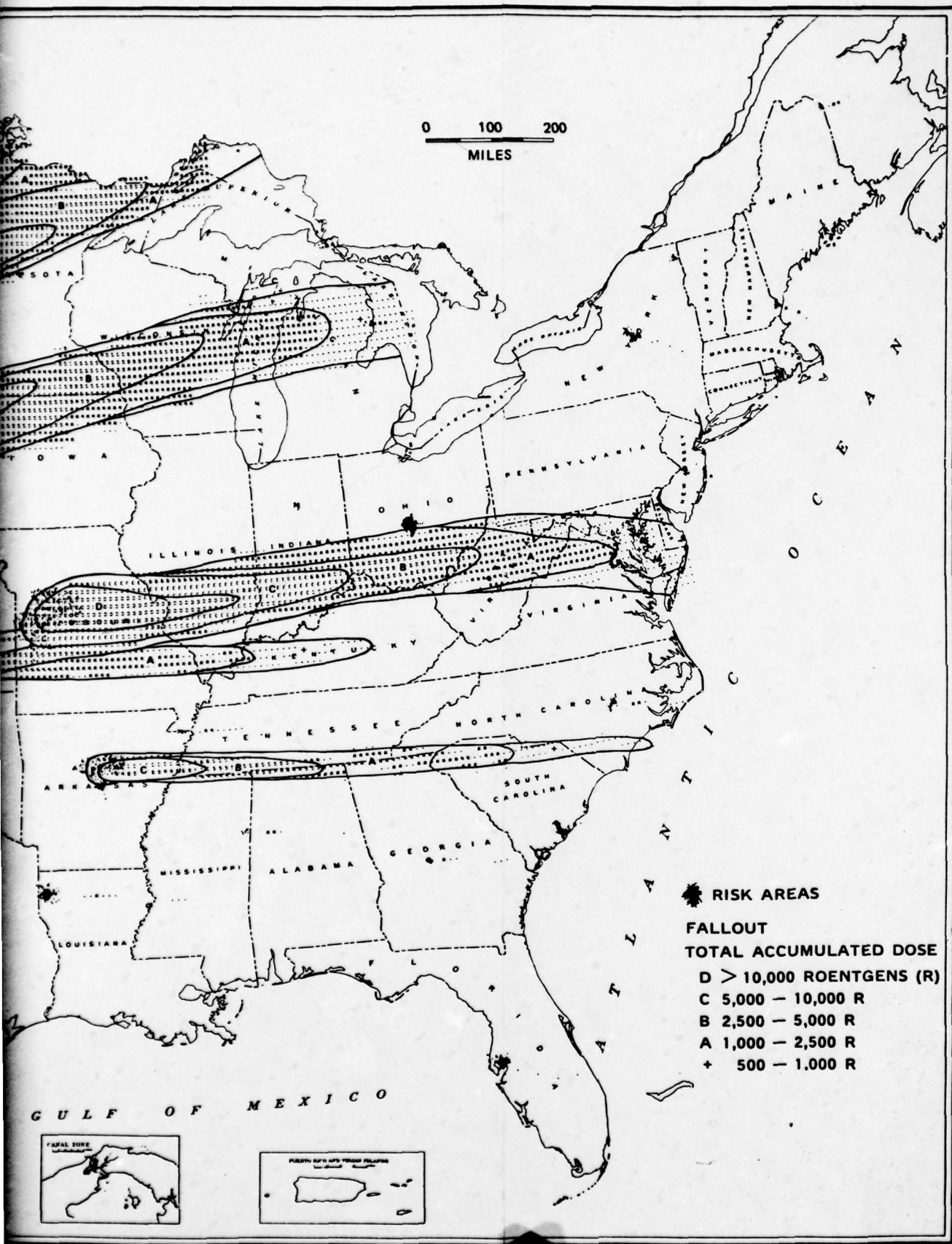


FIGURE 32. RISK AREAS AND FALLOUT PATTERNS FOR (Representative March Winds)



ATTACK VS COUNTERFORCE TARGETS

REFERENCES

1. R. J. Sullivan et al., Civil Defense Needs of High-Risk Areas of the United States, System Planning Corporation, Report 409, March 1979.
2. E. V. Sager et al., Damage Assessments of Blast-Risk Areas in Missouri, System Planning Corporation, Report 431, April 1979.
3. High Risk Areas, Defense Civil Preparedness Agency, TR-82, 1975.

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