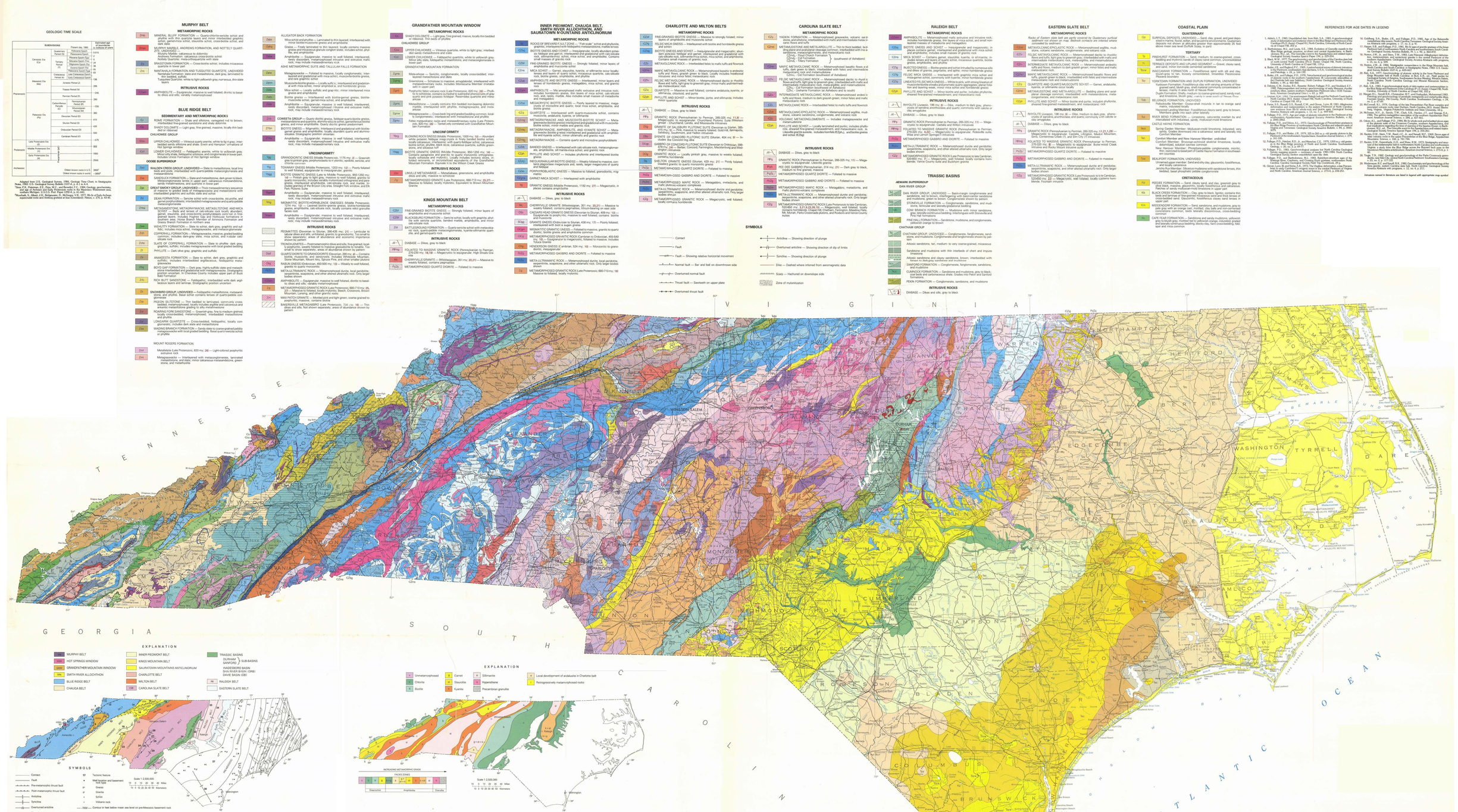
GEOLOGIC TIME SCALE
MURPHY BELT
METAMORPHIC ROCKS
GRANDFATHER MOUNTAIN WINDOW
METAMORPHIC ROCKS
CHARLOTTE AND MILTON BELTS
METAMORPHIC ROCKS
CAROLINA SLATE BELT
METAMORPHIC ROCKS
RALEIGH BELT
METAMORPHIC ROCKS
EASTERN SLATE BELT
COASTAL PLAIN
QUATERNARY
TERTIARY
CRETACEOUS
TRIASSIC BASINS
DAN RIVER GROUP
DAN RIVER GROUP, UNDIVIDED
DOAN FORMATION
COW BRANCH FORMATION
PINE HALL FORMATION
CHATHAM GROUP
CHATHAM GROUP, UNDIVIDED
SANFORD FORMATION
CACE FEAR FORMATION
INTRUSIVE ROCKS
DIABASE
SYMBOLS
Contact
Fault
Thrust fault
Overthrust thrust fault
Anticline
Syncline
Dike
Zone of mylonitization
Scale 1:500,000
1 inch equals approximately 8 miles
VIRGINIA
TENNESSEE
GEORGIA
SOUTH CAROLINA
ATLANTIC OCEAN
CHEROKEE
CLEVELAND
LINCOLN
GASTON
ALEXANDER
WINSTON-SALEM
GREENSBORO
DURHAM
RALEIGH
FAYETTEVILLE
WILMINGTON
ELIZABETH CITY
NORFOLK
VIRGINIA BEACH
CHARLOTTE
MONROE
ROCKINGHAM
RICHMOND
CUMBERLAND
HOKE
SCOTLAND
ROBESON
COLUMBUS
BRUNSWICK
BLADEN
PENDER
ONSLOW
CARTERET
PAMLICO
BEAUFORT
HYDE
TYRRELL
DARE
WASHINGTON
PERQUIMANS
PASQUOTANK
CAMDEN
CURRITUCK
NORTHAMPTON
WARREN
HALIFAX
EDGECOMBE
NASH
WILSON
GREENE
PITT
BERTIE
MARTIN
CHOWAN
GATES
EXPLANATION
MURPHY BELT
HOT SPRINGS WINDOW
GRANDFATHER MOUNTAIN WINDOW
SMITH RIVER ALLOCHTHON
BLUE RIDGE BELT
CHAUGA BELT
INNER PIEDMONT BELT
KINGS MOUNTAIN BELT
SAUratown MOUNTAINS ANTICLINORIUM
CHARLOTTE BELT
MILTON BELT
CAROLINA SLATE BELT
TRIASSIC BASINS
DURHAM
SANFORD
SUB-BASINS
WADESBORO BASIN
DEEP RIVER BASIN (DRB)
DAVIE BASIN (DB)
RALEIGH BELT
EASTERN SLATE BELT
SYMBOLS
Contact
Fault
Pre-metamorphic thrust fault
Post-metamorphic thrust fault
Anticline
Syncline
Overturned anticline
Direction of plunge
Tectonic fracture
Well location and basement rock type
Gneiss
Granite
Schist
Volcanic rock
Contour in feet below mean sea level on pre-Mesozoic basement rock
Scale 1:2,500,000
MAP SHOWING MAJOR LITHO-TECTONIC FEATURES
EXPLANATION
Unmetamorphosed
Chlorite
Biotite
Garnet
Staurolite
Kyanite
Sillimanite
Hypersthene
Precambrian granulite
Local development of andalusite in Charlotte belt
Retrogressively metamorphosed rocks
INCREASING METAMORPHIC GRADE
FACIES ZONES
Greenschist
Amphibolite
Granulite
Scale 1:2,500,000
MAP SHOWING PALEOZOIC METAMORPHIC FACIES
Compiled by J. Robert Butler, 1984
REFERENCES FOR TECTONIC FEATURES
REFERENCES FOR AGE DATES IN LEGEND
GEOLOGIC MAP OF NORTH CAROLINA
1985
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