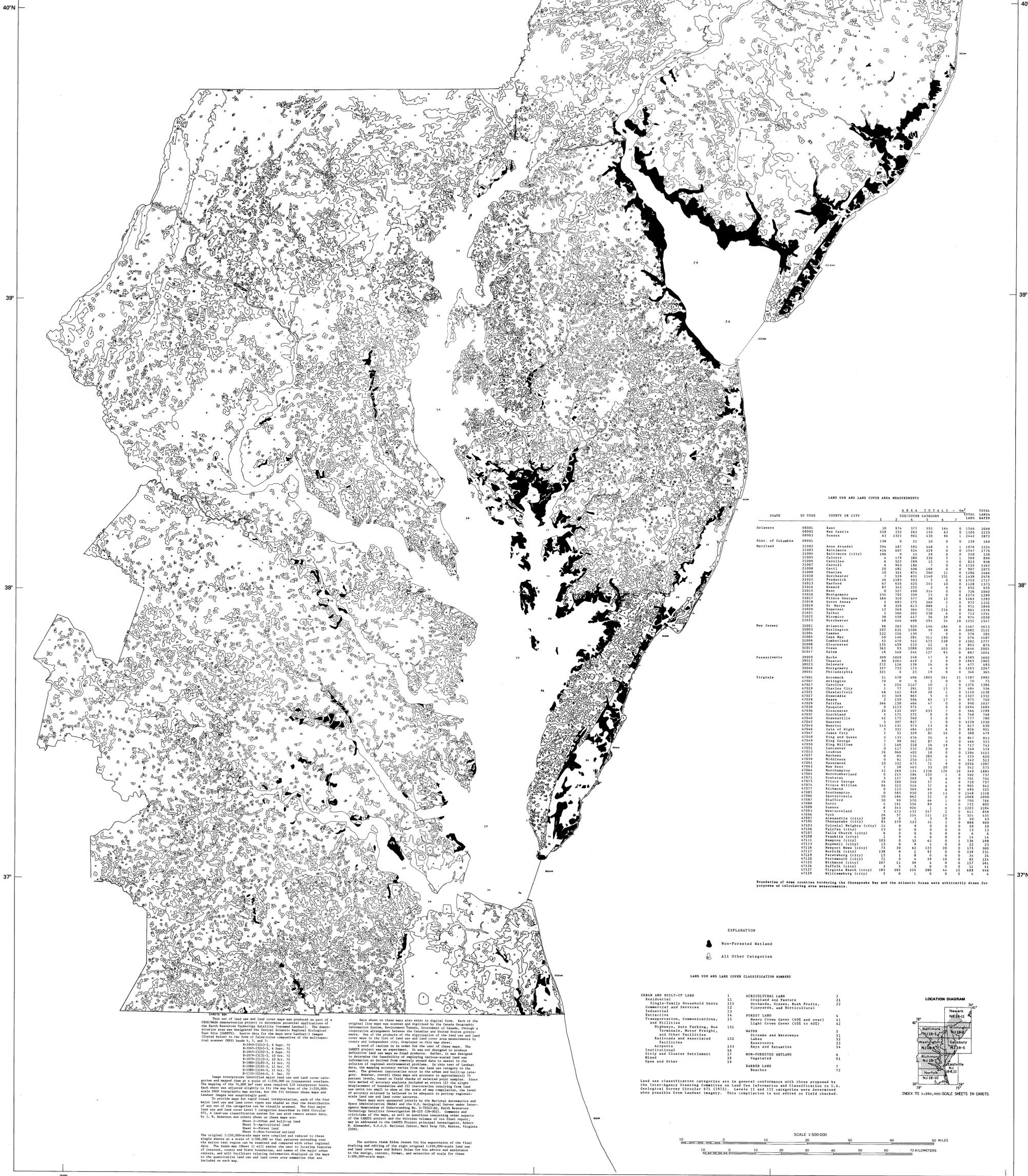


LAND USE AND LAND COVER CENTRAL ATLANTIC REGIONAL ECOLOGICAL TEST SITE, (CARETS), 1972



LAND USE AND LAND COVER AREA MEASUREMENTS

STATE	ID CODE	COUNTY OR CITY	A. R. E. A. T O T A L S - ha ²							TOTAL LANDS WATER
			1	2	3	4	5	6	7	
Delaware	08001	Kent	30	274	277	552	164	0	1546	2086
	08002	New Castle	230	552	262	130	62	0	1320	2225
	08003	Sussex	23	121	983	130	92	0	1442	2972
Dist. of Columbia	09001		138	0	21	10	0	0	0	159
	21007	Anne Arundel	294	187	591	448	1	1	1076	1924
	21001	Baltimore	648	602	524	228	0	0	1582	1774
	21004	Baltimore (city)	194	0	14	29	0	0	239	239
	21008	Calvert	4	179	380	128	0	0	1068	899
	21007	Caroline	4	252	289	15	3	0	833	838
	21009	Charles	2	262	186	6	0	0	1026	1382
	21005	Prince Georges	10	314	871	106	11	0	1204	1446
	21008	Stafford	1	228	822	1140	251	0	2128	2579
	21012	Frederick	26	1181	553	5	0	0	1232	1517
	21013	Howard	62	228	149	11	0	0	1128	1371
	New Jersey	21014	Howard	87	343	222	3	0	0	852
21015		Montgomery	254	702	339	15	0	0	1275	1890
21016		Queen Anne's	345	205	275	28	12	0	1283	1583
21018		St. Mary's	6	329	615	889	1	0	971	1322
21020		Talbot	1	28	79	216	0	0	324	360
21021		Talbot	5	500	202	518	6	0	713	1025
21022		Wicomico	10	628	622	96	0	0	924	1020
21023		Worcester	48	444	688	295	54	18	1252	1547
31001		Atlantic	96	265	920	146	186	0	1687	1843
31003		Burlington	207	431	1206	19	18	0	2082	2123
31004		Camden	222	126	120	7	0	0	576	685
31005		Cape May	9	146	281	11	190	0	676	1127
31008	Cumberland	32	670	662	475	218	0	1302	1777	
31009	Gloucester	132	459	233	22	6	0	833	875	
31013	Ocean	363	83	1088	352	103	0	2164	2500	
31017	Salem	18	840	246	127	93	0	897	1024	
Pennsylvania	39003	Bucks	328	328	328	248	12	0	1285	1802
	39015	Chester	80	1284	619	2	0	0	2983	3985
	39023	Montgomery	273	126	139	4	0	0	1028	1495
	39031	Philadelphia	312	733	175	4	0	0	1545	1857
Virginia	47001	Accomack	21	478	406	1805	261	21	1187	2992
	47002	Bedford	70	276	1127	0	0	0	176	282
	47019	Charles City	1	77	181	12	15	0	484	136
	47021	Chesapeake	48	28	989	26	2	0	1182	139
	47022	Dinwiddie	31	139	845	5	0	0	1227	1332
	47028	Essex	2	109	104	65	0	0	675	792
	47029	Fairfax	346	158	446	47	0	0	990	1037
	47030	Fauquier	0	112	374	81	0	0	624	695
	47034	Gloucester	20	132	407	633	7	0	146	1199
	47035	Greenland	5	171	372	0	0	0	168	148
	47041	Greeneville	42	175	160	3	0	0	773	280
	47042	Henrico	11	287	827	2	0	0	1628	1700
	47043	King George	1	12	78	15	0	0	117	10
	47044	King and Queen	113	128	778	15	0	0	817	951
	47048	King William	2	135	676	26	4	0	817	843
	47050	King William	2	148	228	26	19	0	717	743
	47051	Lancaster	0	127	232	219	0	0	1028	1179
	47053	Lee	26	968	402	18	0	0	1394	1412
	47059	Madison	83	136	256	185	0	0	888	959
	47061	Middlesex	0	91	210	271	1	0	102	233
	47062	Norfolk	11	312	635	71	0	0	1028	1392
	47064	Northampton	12	269	126	1316	126	18	149	1885
47065	Northumberland	48	28	188	989	65	0	1182	139	
47071	Patrick	5	127	549	0	0	0	701	701	
47072	Stafford	14	100	349	65	0	0	545	624	
47074	Stafford	66	323	516	37	0	0	905	942	
47075	Stafford	0	113	349	65	0	0	545	624	
47084	Saunderland	0	185	950	17	13	0	1248	1318	
47085	Saunderland	20	186	862	22	0	0	1088	1290	
47088	Smyth	0	161	256	80	4	0	725	805	
47089	Smyth	0	161	256	80	4	0	725	805	
47091	Warrenton	3	173	433	247	2	0	811	818	
47092	Warrenton	24	92	174	112	11	0	512	527	
47093	Warrenton (city)	39	219	213	1	0	0	440	453	
47101	Westmoreland	15	10	10	0	0	0	60	60	
47104	Colonial Heights (city)	11	0	0	0	0	0	20	20	
47105	Fairfax (city)	12	0	0	0	0	0	12	12	
47108	Frederick (city)	1	9	4	0	0	0	16	16	
47109	Franklin (city)	1	9	4	0	0	0	16	16	
47112	Stafford (city)	23	0	0	0	0	0	112	112	
47113	Stafford (city)	15	0	0	0	0	0	22	22	
47114	Stafford (city)	23	0	0	0	0	0	112	112	
47117	Stafford (city)	138	0	1	0	0	0	139	139	
47118	Stafford (city)	12	1	8	0	0	0	24	24	
47120	Stafford (city)	71	0	4	29	10	0	85	111	
47121	Stafford (city)	107	11	39	4	0	0	127	141	
47122	Stafford (city)	182	202	230	145	15	0	488	664	
47123	Stafford (city)	3	0	0	0	0	0	6	6	

Boundaries of some counties including Chesapeake Bay and the Atlantic Ocean were arbitrarily drawn for purposes of calculating area measurements.

EXPLANATION

- Non-Forested Wetland
- All Other Categories

LAND USE AND LAND COVER CLASSIFICATION NUMBERS

- URBAN AND BUILT-UP LAND
 - 1 Residential
 - 11 Single-Family Household Units
 - 12 Commercial and Services
 - 13 Industrial
 - 14 Recreational
 - 15 Transportation, Communications, and Utilities
 - 151 Highways, Auto Parking, Bus Terminals, Motor Freight, and Other Facilities
 - 152 Railroads and Associated Facilities
 - 153 Airports
 - 16 Institutional
 - 17 Strip and Cluster Settlement
 - 18 Mixed
 - 19 Open and Other
- AGRICULTURAL LAND
 - 2 Cropland and Pasture
 - 21 Orchards, Groves, Bush Fruits, Vineyards, and Horticultural
- FOREST LAND
 - 4 Heavy Crown Cover (100 and over)
 - 41 Light Crown Cover (100 to 400)
- WATER
 - 5 Streams and Waterways
 - 51 Lakes
 - 52 Reservoirs
 - 53 Tidal and Estuarine
 - 6 Non-Forested Wetland
 - 61 Vegetated
 - 62 Bare
- BARREN LAND
 - 7
 - 72

Land use classification categories are in general conformance with those proposed by the Inter-Agency Steering Committee on Land Use Information and Classification in U.S. Geological Survey Circular 811 (1972). Levels 11 and 12 categories were determined when possible from Landsat imagery. This compilation is not edited or field checked.

SCALE 1:500,000
0 10 20 30 40 50 60 70 MILES
0 10 20 30 40 50 60 70 KILOMETERS



This set of land use and land cover maps was produced as part of a cooperative demonstration project to determine potential applications of the Earth Resources Technology Satellite (ERTS) data. The demonstration area was designated the Central Atlantic Regional Ecological Test Site (CARETS). Source data for the maps were Landsat-1 images (listed below) in the form of fabricated copies of the microwave scanner (MSS) bands 4, 5, and 7.

CARETS Map
B-1084-1129-3, 11 Sept. 72
B-1084-1129-4, 4 Sept. 72
B-1084-1129-5, 8 Sept. 72
B-1084-1129-6, 10 Sept. 72
B-1084-1129-7, 10 Oct. 72
B-1084-1129-8, 11 Oct. 72
B-1084-1129-9, 11 Oct. 72
B-1084-1129-10, 11 Oct. 72
B-1133-1134-3, 1 Dec. 72

Image interpreters identified major land use and land cover categories and mapped them at a scale of 1:500,000 on transparent overlays. The mapping of the 78,000 ha test area required 130 interpreter hours. Each sheet was adjusted to fit the map frame of the 1:500,000-scale MSS2 topographic map series, but the fit between these maps and Landsat images was not perfect.

To provide maps for rapid visual interpretation, each of the four major land use and land cover types was shaded as shown. The distribution of any one of the categories can be visually assessed. The four major land use and land cover level 1 categories described in this circular are: 1. Urban and built-up land, 2. Agricultural land, 3. Forest land, and 4. Water.

The original 1:500,000-scale maps were compiled and reduced to these final sheets at a scale of 1:250,000 on the patterns extending over the entire test region. The maps were compiled and reduced with other regional maps of interest, county and State boundaries, and names of the major urban centers, and will facilitate visual information transfer. Maps to be quantitated land use and land cover area summaries that are included on each map.

Data shown on these maps also exist in digital form. Each of the original line maps was scanned and digitized by the Canada Geographic Information System, Department Canada, Government of Canada, through a cooperative arrangement between the Canadian and United States governments. Use of the products of the digitization of the land use and land cover maps by the list of land use and land cover area measurements by county and independent city, displayed on this map sheet.

The intent of this map is to provide a visual interpretation of the CARETS project as an experiment. It was not designed to produce definitive land use maps for final products. Rather, it was designed to determine the feasibility of employing satellite-derived land use information as derived from remotely sensed data to assist in the solution of regional environmental problems. In this case, of land use maps, the greatest accuracy varies from one land use category to the next. However, overall these maps are accurate to approximately 70 percent levels, based on field checks of selected pilot samples. Since this method of accuracy analysis included an error of 10 percent, the use units too small to show at the scale of map completion, the level of accuracy indicated is believed to be adequate to permit regional-scale planning.

These maps were sponsored jointly by the National Aeronautics and Space Administration (NASA) and the U.S. Geological Survey under Interagency Memorandum of Understanding No. 7-7023-62. Earth Resources Technology Satellite Investigation 80-12 (ERTS-1). Comments and criticisms of the maps, as well as questions concerning other aspects of the CARETS project and the thirteen volumes of its final report, may be addressed to the CARETS Project principal investigator, Robert H. Alexander, U.S.G.S. National Center, Mail Stop 710, Reston, Virginia, 22091.

The authors thank Edna Jones for his supervision of the final draft and printing of the maps, original 1:500,000-scale maps, and land cover maps and Robert Dolan for his advice and assistance in the design, layout, printing, and distribution of the maps. Maps to be quantitated land use and land cover area summaries that are included on each map.

LAND USE AND LAND COVER IN CARETS: DELAWARE, DISTRICT OF COLUMBIA AND PORTIONS OF MARYLAND, NEW JERSEY, PENNSYLVANIA AND VIRGINIA, 1972, NON-FORESTED WETLAND

By
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