Remote Sensing Activity

Mary Ann H. Smith, 1993

1. Show pictures of remote-sensing data from Public Mail Office; talk about the definition of remote sensing
2. (Optional) Use light source of prism to split light into a spectrum; talk about the elctromagnetic spectrum and colors.
3. Post house/garden scene where all can see it. Ask a volunteer to hold Filter 1 over various elements of scene.
4. Use viewgraph or poster of blank worksheet to record the class's consensus about the appearance of each scene element through the filter.
5. Repeat steps 3 and 4 for Filters 2-4.
6. Discuss how some features have unique signatures; others appear the sam ein two or more filters, and need the 4th to make a final identification. (The point is--more wavelengths give you more information.)
7. Relate these crude visible-light filters to the ones used on remote-sensing systems in Earth orbit.

REMOTE SENSING WORKSHEET

INTENSITY SCALE

0 - Not visible
1 - Faint
2 - Medium
3 - Dark
4 - Black

CHANNEL	1	2	3	4
FILTER COLOR	Red	Blue	Yellow	Green
House				
Car				
Swing Set				
Lettuce				
Corn				
Pumpkins				
Tomatoes				
Blueberry Bushes				
Oak Tree				

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0 - Not visible
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CHANNEL	1	2	3	4
FILTER COLOR	Red	Blue	Yellow	Green
House	0	3	2	3
Car	2	3	3	3
Swing Set	4	0	3	2
Lettuce	2	1	2	0
Corn	2	1	2	1
Pumpkins	2	2	2	3
Tomatoes	2	2	3	3
Blueberry Bushes	3	1	3	2
Oak Tree	2	1	2	0

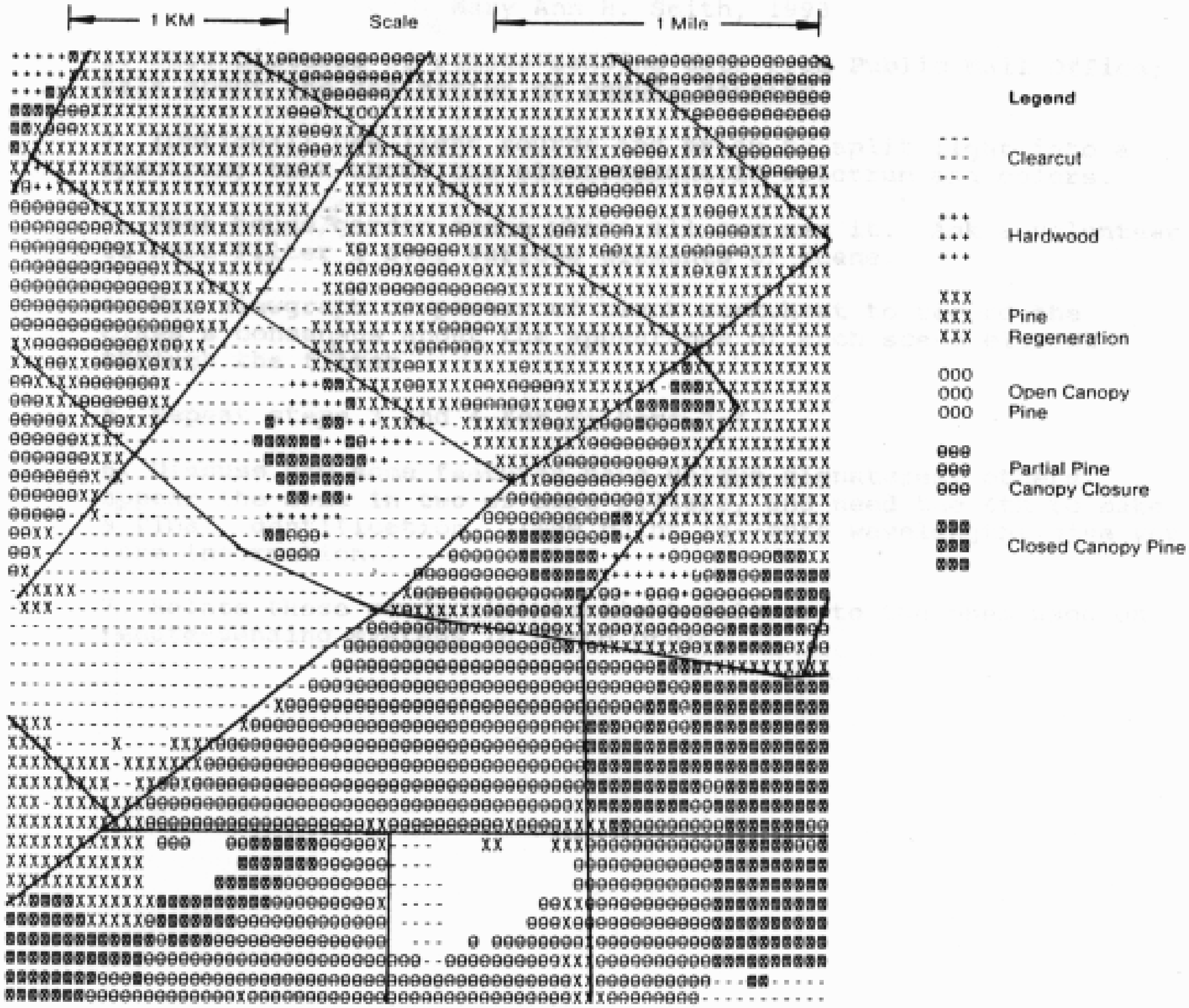

Figure. Computer generated map which illustrates the use of Landsat data in forest resource management.