A CHALLENGE ANSWERED

LEONARD GORDON
Tucson, Arizona

In the August 1994 **Word Ways** I challenged readers to find the smallest rectangle in which one can pack the 37 different US presidential surnames with at least one name in each of the eight possible directions (but connectivity not required). My answer to this challenge is shown below, an 18x12 = 216 rectangle in which FILLMORE does not connect to any other; each diagonal direction has a single representative.

G t r J e f F e r s o N o s i d a m
n R E O r n O m f i l l m o r e r
i u A H a r R i s o N o t n i l c u
d m g N e g D i l o c C a r t e r h
r a a s T a y l o R o o s e v e l T
a N N o e i s e n H o w e r f r
H l o N a n a h c u b s s m A d A
o o s o e c r e i P r u t
o c k S e y a h o n E r u B n a v
v n C L e v e L a n D L e i f r a g
e i a i m c K i n l e Y d e n n e k
r l j w w a s h i n g T o N i x o n

A true search-a-word (square format, with at least three and at most six surnames in each of the eight directions) can be placed in a 15x15 = 225 square. Letters shared by two presidents are capitalized, and by three (K,J,R) in boldface. The span is 11, from MONROE to PIERCE, FORD or VAN BUREN, and there is one cycle (WILSON, EISENHOWER, COOLIDGE, MCKINLEY) in the graph. All names are connected.

P e b r g n J o H N S o n e
i o g u e A i e a o m i y
e l d C v r x f r S a e
r r K i h o f o f e d L d f
c o s e c l a o i N e n i I a
e O n n a h o n H e i r l n W
N s l n r a O a k l l s a g
o e o e t y w n C N m D s o
t v c d e E o M e o r h b n n
n e n y R s a r R o i u a e
i l i e i d u E f n s m o
l t L r i b a g a r t H U R
c y r s n g T n a r g r n
t a o a a r O l y a T a f T o
h n v n d N a l e v e l c m