AMENDMENT TO H.R. 4489 OFFERED BY Lucas

At the end of the bill, add the following new section:

1	SEC. 45. ELECTROMAGNETIC SPECTRUM RESEARCH AND
2	DEVELOPMENT.
3	The Administrator shall develop a program to re-
4	search the use of spectrum in the civil aviation domain,
5	including aircraft and unmanned aircraft systems. This
6	research shall, at a minimum, address—
7	(1) how, operating within an Unmanned Air-
8	craft System Traffic Management system, un-
9	manned aircraft systems can safely use, for control
10	link, tracking, diagnostics, payload communication,
11	collaborative-collision avoidance (e.g. vehicle-to-vehi-
12	cle communications), and other purposes—
13	(A) aviation-protected spectrum;
14	(B) commercial communications networks,
15	such as mobile communications networks; and
16	(C) any other licensed or unlicensed spec-
17	trum;
18	(2) how the reallocation of spectrum assigned
19	for use within frequency bands adjacent to those al-

1	located for position, navigation, and timing may im-
2	pact the safety of civil aviation; and
3	(3) measures to protect and mitigate against
4	spectrum interference in frequency bands used by
5	the civil aviation community to ensure public safety.

