

Hedy Lamarr and the Torpedo (!!)

[This story is fascinating because it's totally unbelievable...but true!]

Hedy Lamarr, the star of such films as *The Heavenly Body* and *Dishonored Lady*, secured her place in history more than 60 years ago as the first woman to romp naked across a commercial movie screen. Yet, she earned another place in history, although few are aware of it.

In 1940, Hedy Lamarr, who has learned about....weaponry, of all things...through her marriage to an arms manufacturer, joined with the avant-garde composer George Antheil to invent an anti-jamming device for radio-controlled torpedoes!

The Navy didn't take it seriously, but years later the Lamarr-Antheil idea was independently advanced by other scientists and helped form the basis for anti-jamming technology now used in the U.S. military's \$25 billion MILSTAR defense communications satellite system. Lamarr's role in "frequency hopping," overlooked for decades, is now as hot with techno-enthusiasts as pinups of Lamarr were with World War II servicemen. Schematic drawings of her patent appear on Internet web sites. By 1997, the actress, then 82, was being showered with awards from inventors groups, including such an award accepted on her behalf by her son at the Invention Convention in Pasadena on September 7, 1997.

How did all this come about? As a teenage actress in Vienna, Hedy Kiesler married a millionaire arms-maker named Fritz Mandl, who was obsessed with his young bride and always kept her by his side. So, at an age when she might have been entering college, she instead was listening in on her husband's discussions of weapons systems with his engineers, soaking up the latest information on munitions. Lamarr soon lost interest in her husband and was disturbed by his arms sales to Nazis. One day, she slipped sleeping pills into her maid's coffee, disguised herself in a servant's uniform, and fled to London. And, that's where she met Louis B. Mayer.



In 1940, at a dinner party, Lamarr met composer George Antheil and happened to tell him about an idea she had for a device to protect U.S. radio-controlled torpedoes from jamming attempts. She thought a signal could be broadcast to the torpedo over a series of quickly changing frequencies which any jamming could not keep up with. Intrigued, Antheil suggested they work on the idea together. Why would Antheil have been interested?... Because he was an experimental composer who had once scored a composition for 16 synchronized player pianos and several other instruments. Eventually, their invention proposed 88 frequencies to be used—matching the number of keys on a piano. The fact that two artists had beaten engineers to the punch escaped public notice and recognition for over 50 years!

[From Peter Y. Hong, Sacramento Bee, September 7, 1997] [Special thanks to Mark Quilling, MN, for the pic here, and to Tom Clewell, NY, for letting me know that it existed.]