

MEMORIALS

JIM WILLIAMS AND BOB PEASE REMEMBERED

JUNE 28, 2011 | WALT JUNG

It is a sad time for analog designers and indeed, all of us familiar with the writings of Jim Williams and Bob Pease. Both men passed on within the last week or so, Jim after a stroke, and Bob in a car accident, just after attending a service for Jim.

I prepared a remembrance of Jim and Bob for Paul Rako, *EDN's* analog editor, which appears [below](#). Paul has done a great job of assembling tributes to these two men, and everyone will find these memories [a very good read](#). Very sad as well, but still, lots of good things to remember about both.

Some further tributes to these two prolific analog engineering contributors have been posted by [Rich Pell](#) and [Patrick Mannion](#).

Kent Lunberg has prepared a [bibliography of the works of Jim Williams](#). He has also embarked on a (re)reading of Williams app notes, [and blogs about this](#).

Linear Technology has prepared a special web page dedicated to [Jim Williams Remembered](#).

National Semiconductor has prepared a special web page dedicated to [Remembering Bob Pease](#).

Walt Jung



[Walt Jung remembers Bob Pease](#)

[Paul Rako](#) - June 24, 2011

Walt Jung worked for Analog Devices for 11 years as an apps engineer, before he retired in 2002. Before that he worked at Linear Technology for a few years, reporting to co-founder Bob Dobkin. He also consulted to both ADI and Precision Monolithics, in earlier years before their merger. Walt wrote lots of articles for Electronic Design and a few for EDN and many other publications over a 40-year period, beginning in late 60's. He wrote a column for ED called "*Walt's Tools and Tips*". Electronic Design named Jung to their *Hall of Fame* in 2002. In addition to these [several hundred articles](#), he has written more than 10 books on integrated circuit applications. His best-known book is the [IC Op Amp Cookbook](#), which has been in print since 1974.

Walt's most recent book is the [Op Amp Applications Handbook](#), which was edited by him and written with many other ADI authors. In 1979, the AES (Audio Engineering Society) named Jung a Fellow of AES for his work on distortion in IC op amps. Here is his email to me regarding the untimely deaths of [Jim Williams](#) and a week later, [Bob Pease](#).

- On the recent and very sad deaths of Jim Williams and Bob Pease, I send my sympathies to their families. I was born the very same year as Bob Pease, and crossed paths with him from time-t-time. A couple of stories I can tell will likely stir up similar reminiscences.
- Bob was quite helpful to me around the period of 1986, when I was revising my IC Op Amp Cookbook to the 3d Ed. He updated me with then developing National parts, which of course enhanced the utility of the book, adding appreciably to earlier key help from Bob Dobkin, and others at National.
- Some time after that, I went from the writer mode to the designer mode, and was working at AAI in MD, using National IC parts in a design. Well it happened that this project had a decree of "everything must be simulated in SPICE". So everyone knows what's coming now, right? Yes, I did call Bob Pease at National, and in my naiveté, asked about a model for their LM108A. The answer went something like "What do you want, the real, working op amp, or a computer fake of it that may or may not work?" Needless to say, I afterwards independently resolved the issue of what to do about the 108A via homemade models, learning some SPICE along the way. And I deferred any further inquiries about SPICE models with Bob.
- Jim Williams had low tolerance for SPICE as did Bob Pease, albeit a bit less vociferous. While working at LTC several years later on, my job was to develop the company's first op amp models. One day I was playing around with a comparator model, and tried it in one of Jim's many V/F circuits. It actually seemed to work well! Apparently, word on this got back to Jim fairly quick, and I got a phone call about it. He didn't exactly call to encourage developing that comparator model, and afterwards I went on to my other op amp model priorities. I don't think SPICE ever was any priority of Jim's, but I also don't think that fact handicapped him, or made any of his many useful circuits less credible. To each his own. Both men were examples of hard working, serious engineers.
- A final Pease story. Somewhere around 2001 or so, I found myself editing and writing yet another

op amp book, IC Op Amp Applications, this time for ADI. Bob Pease was then still working for National. But, when asked, he was every bit as helpful on some historic details of Bob Widlar's National ICs, and even more so for historical details of his years at Philbrick (GAP/R). He provided his classic "chicken scratch" schematics of his own designs, which I cleaned up and put in the book. The world thus got important historic details of early op amp developments. I'll always appreciate his attention to detail on that project. A tip of my hat to Jim Williams and Bob Pease, two excellent analog engineers who will be surely missed, but very long remembered.

- Walt Jung