
Introduction

The National Aeronautics and Space Administration-Goddard Space Flight Center (NASA/GSFC) Battery Workshop is an annual meeting for aerospace battery manufacturers and users to discuss recent results, problems, plans, programs or developments of interest to the industry. It grew out of an *ad hoc* meeting in the late 1960s called to discuss a battery crisis at that time. Since then it has seen the development of the nickel-hydrogen battery from its conception in the early 1970s, through growing pains of a new technology, to its current status as a preferred system in many applications. It has seen the development of lithium primary batteries in the mid-to-late 1970s for space probes and, more recently, the appearance of secondary lithium systems with the promise of supplanting aqueous systems in future applications. Through all of this the nickel-cadmium system has continued to be the system of preference in many applications; its technology has continued to develop and its service life improve such that one third of the 1985 papers still concern it.

In the past the proceedings of these meetings have been published in government reports which receive limited distribution, allowing authors of suitable papers to publish also in established journals. This year, the Journal of Power Sources has agreed to devote a special issue to these proceedings and publish as many as possible of these papers within somewhat relaxed publication criteria to reflect the informal flavor of the meeting. The Special Editor has indulged in considerable circumspection on this point: whether to force all of these papers, some of which, by nature, report incomplete activities and data, into the mold of a standard Journal article or leave them as they are. With apologies and appreciation to several very conscientious referees who worked diligently to suggest changes and additions to some papers, the Special Editor decided to leave them essentially as they were, reflecting as they do an insight into the workings of the U.S. aerospace battery community in developing new technologies, expanding old technologies, and comparing experiences in a continuously incomplete but on-going activity. The Special Editor's only contribution has been to occasionally "adjust" the English to a more universal form and to explain certain acronyms and jargon that is, perhaps, peculiar to the U.S. aerospace industry.

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