

# INTRODUCTION

During my professional career, I had kept all my company travel expense reports then upon retirement in 2010, I entered this information in a spreadsheet. Summary data therefrom is:

Span of trips: 1970-2010 Airfare Costs: \$329,697 Total Costs: \$475,088

Number of trips: 181 Hotel Costs: \$87,783 Trips Duration: 1,141 Days Misc Costs: \$57,608

Not included in my spread sheet nor this summary data are a field assignment to Patuxent River (30 months) and my system support at Atusgi, Japan (7 months).

### Career Thumbnail

I am an IEEE Life Member, having worked in the Military & Aerospace industry for over 41 years. Coming from a small Minnesota farm, I graduated with a BEE from the University of Minnesota in 1969 and began working for Sperry Univac (and its successor companies — Unisys/Paramax/Loral/Lockheed Martin). I started as a field service engineer then ascended through various engineering positions, systems programmer, Senior Systems Engineer and then retiring as a Technical Director. My broadest experiences were with several P-3C ASW (Anti-



Submarine Warfare) aircraft systems provided to the US Navy and several other countries and on a few classified programs, <a href="https://vipclubmn.org/People5.html#Leslie">https://vipclubmn.org/People5.html#Leslie</a>.

My greatest technical challenge was developing signal processing microprograms and software for a UNIVAC Programmable Signal Processor (PSP) Internal Research and Development (IR&D) program. That led to development of the Unisys/Paramax Systems' NEXRAD PSP from feasibility study to prototype development to final production over an 11-year period. I am quite proud to have participated in a program that has direct daily impact on millions of people and organizations via evening weather reports.

The Minneapolis (Chanhassen) NEXRAD system was installed in 1994, now expected to be in operation beyond 2030. Just one of the 159 National Weather Services' installations coordinated from their center in Norman, OK,



https://vipclubmn.org/EngDocImg/14.%20NEXRAD.pdf.



## An IT Legacy paper Les Nelson's Travels

November 2025

After retiring in 2010 I joined the VIP Club's legacy committee; presently a *Volunteer Extraordinaire* at the Lawshe Memorial Museum in S. St. Paul, MN. We are helping to document the corporate and technology legacy of ERA/UNIVAC/Sperry/Unisys/Paramax/Lockheed Martin, <a href="https://vipclubmn.org/Documents/VolunteerAward9.pdf">https://vipclubmn.org/Documents/VolunteerAward9.pdf</a>.

In July 2025 I met with fellow retired signal processing engineers Dave Bondurant and Dr. Ray Artz. We developed a presentation *UNIVAC Signal Processing & NEXRAD*. On 30 September we conducted an IEEE Webinar for these Radar Data Acquisition systems and the Programmable Signal Processor development that began in 1979. Our slides and the webinar are available for viewing: <a href="https://vipclubmn.org/LegacyDocImg/Univac%20&%20NexRAD.pdf">https://vipclubmn.org/LegacyVideos/Univac%20Signal%20Processing NEXRAD.mp4</a>. With questions and comments, the .mp4 lasts almost two hours.

{The most poignant statement during the discussions was when Les paid tribute to his wife for supporting and tolerating the many, many travels that were part of his career. LABenson}

## My Travels

I have sorted these alphabetically, independent of the project/programs and dates; some had multiple trips and or multiple days; each destination could be a story unto itself – thanks to my many program/project co-workers who were part of the development teams!

### **Domestic Destinations**

California (Los Angeles, Moffett, Palmdale, San Diego) Connecticut (Bloomfield) Florida (Jacksonville, Oldsmar) Georgia (Marietta) Indiana (Indianapolis) Maryland (Patuxent River, Silver Spring) Massachusetts (Burlington)

International Destinations

Canada (Montreal, Toronto, Nanaimo, Vancouver, Vancouver Island) Germany (Aachen, Bremer, Nordholz) Iceland (Courtesy of the US Navy) New Jersey (Moorestown)
New York (College Pt., Great Neck, New
York City, Syracuse)
Oklahoma (Norman)
Pennsylvania (Ivyland, Philly, Trevose)
South Carolina (Greenville)
Utah (Salt Lake City)
Washington (Seattle)
Washington DC (Navy Yard)

Japan (Atsugi Naval Air Facility, Kamakura, Nagano, Tokyo, Utsunomiya) New Zealand (Auckland) Pakistan (Islamabad)

#### **NEXRAD Travel**

30% of my 181 trips and 25% of my 41 yr. career were for the NEXRAD program. Span of trips: Nov 1982-June 1993 Number of trips: 56 Trips Duration: 256 Days

I have had a great career that took me throughout the world. Les Nelson