

*Methodology.* General methodology is described at the beginning of this section. Of the basic sources <sup>9, 10, 12</sup> the Army end-item list <sup>10</sup> was in sufficient detail to eliminate the need for identifying lower-cost items, with the exception of the aggregation, miscellaneous electronics. Its product distribution was identified from data in volume II of the AMP.<sup>58</sup> An Air Force procurement support document <sup>59</sup> was used to identify items less than \$2 million and organizational and base support equipment. This document provides lists of equipment in excess of \$500,000. The remaining values for items less than \$500,000 were relatively small and further product identification was not attempted.

Electronics and communications procurement lists included generic "systems" categories (generic titles for aggregations of equipment). Examples of systems line items are missile communications support; 412L, air weapons control system; and 433L, weather observation and forecast system.

Identification and quantification of end products involved in electronics systems proved to be difficult because of limitations of published data sources. Although AMP <sup>58</sup> did include information about some Army systems, a major portion of "system" dollars remained for product identification, and additional data collection was required. The PEMA development division <sup>60</sup> provided shopping lists and technical product information pertaining to air defense operating centers and fire-direction systems and procurement lists for communications and cryptographic systems such as Alternate National Military Command Center and Strategic Army Communications.

Several offices supplied Navy system procurement lists. Dollar values for the category items less than \$500,000 were large enough to warrant further product search, and the following information was obtained: a computer listing of all items being procured as ground electronics in budget activity 3, weapons and support equipment;<sup>61</sup> shopping lists of equipment being procured for the CAESAR sonar system;<sup>62</sup> shopping lists of equipment (representing prime contracts) being procured for naval tactical data system (NTDS) and operational control centers (OPNCON);<sup>63</sup> shopping lists for Atlantic Fleet Weapons Range and items less than \$500,000;<sup>64</sup> technical advise on SISS II sonar system procurement;<sup>65</sup> detailed shopping lists of personnel support equipment;<sup>66</sup> and added information pertaining to Navy electronics spares procurement and Marine electronics shopping lists.<sup>67</sup>

Collection of data on Air Force systems involved visits to a number of systems project offices in the Boston and Los Angeles areas. Data on the major portion of missile communications support, namely, Minuteman <sup>68</sup> and space systems,<sup>69</sup> were obtained from offices in the Los Angeles area. The Minuteman Special Projects Office <sup>70</sup> provided Minuteman electronics data. Individual systems project offices at Electronic Systems Division, Bedford, Mass., provided the necessary shopping lists of prime products being procured in fiscal year 1965 for Air Force L-systems, e.g., 412L, air weapons control system; 433L, weather observation and forecast system. Dollars for Eastern and Western Test Ranges under missile communication support were